RELIGION and SCIENCE

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FOREWORD

The teachings of religion are concerned not with empty abstractions but with the eternal truths of the universe. The only way to salvation lies in our acceptance of and submission to these truths, just as we adapt our lives to the brilliance of the sun, whose rays we can neither stop nor dim. To these truths we can adopt an attitude neither of denial nor of indifference. Relate to them we must, or we shall find our-selves on the path to eternal damnation.

If we are to have the benefit of religious teachings, the safest and surest way is through divine revelation — the message of the Lord of the Universe conveyed by His messengers to mankind. Speaking of the doubts raised by ancient, pre-Islamic nations about the verity of the messengers' appeal and about their status as true apostles of God, the Quran records how the apostles argued, "Is there any doubt about God, the Creator of the heavens and earth?" (14:10), thereby indicating that the truth of their message was based on nature. Nature's manifestations all around us in the form of

the earth and heavens are observable evidence of the truth of the teachings, which the prophets presented as a matter of theory.

This argument in favour of religion is still as pertinent and as valid today as it was in bygone ages. Whereas in ancient times man understood little of the phenomena of the earth and heavens, in the present day human knowledge of these matters has increased enormously and, far from lessening the importance of this argument has—through modern research—consolidated and reinforced the teachings of the Prophet.

The picture of the universe that emerges from modern knowledge is that of a perfectly organized system, bound by immutable laws. It had been surmised initially that behind observable phenomena there existed a mechanical system which continued to function owing to the laws of cause and effect. But a more meticulous and searching study of this subject has revealed this supposition to be totally inadequate, for no system however flawless and unremitting in its movements can function without a mover and sustainer at every moment.

Similarly, the rapid increase in human knowledge had led to the assumption it would ultimately embrace all truths. There would then be no need for divine revelation. But later investigations have demonstrated how baseless this concept is, for man simply does not have faculties, which are developed enough to arrive unaided at absolute truths. He must, in the last analysis, have recourse to an Eternal Teacher. In all ways, modern knowledge, far from weakening the bases of religion, has fortified them.

Modern investigation has also proved that the urge to be religious is a natural and insuppressible emotion in man. Attempts have been made to formulate a man-made religion, but in a universe where man is pathetically incapable of arriving at ultimate truths, this has been a failure. This was inevitable, for there is no man who is able, without divine guidance, to develop a religion, which is in complete correspondence with the truths of the universe for the benefit of the creatures that inhabit it.

1. THE METHOD OF ARGUMENT

> It might be said that metaphysicians of the past have done something comparable to writing a dud cheque without adequate funds in the bank. They have used words without proper 'cash' to back them; they have been unable to give their words 'cash-value' in terms of states of affairs.
>
> 'The absolute is incapable of evolution and progress' is a grammatically correct sentence; but the words are like a dud cheque, and cannot be 'cashed'.

These statements, made by T.R. Miles in his book, *Religion and the Scientific Outlook,* (p. 20) would appear to indicate that as religion belongs purely to the domain of faith, its claims are not based on valid arguments, and that if they are to be acceptable they must be verifiable outside this domain. This implies that the intellectual processes by which scientific proofs are arrived at are in some way different from those, which lead to acceptance of religious phenomena. We shall see that this is true only in

terms of observability, but not in terms of inferential procedures. For instance, if it is asserted that "the galaxies are not silver clouds, but a cluster of separate stars," the acceptance of this statement may initially be a matter of faith, but when the claimant directs one's gaze through a powerful telescope, what began as a belief becomes a reality which is observable by everyone.

Similarly, disputes about whether it is correct or not to say that water contains microorganisms are effectively terminated by placing a drop of water under a microscope, when it will immediately be observed that the said microorganisms are legion.

With little heed for logic, however, it has been assumed, conversely, that since the truths of religion cannot be materially demonstrated, the tenets of religion must, therefore, be dismissed as mere claims, matters of faith and belief — nothing more.

Let us now go beyond this particular assumption, whose main criterion for acceptance is that of observability, to consider phenomena, which are either invisible or only partially observable. Take

the statement that 'the earth is round.' When we look around us, there is nothing to indicate that this is so. It is a fact arrived at by inference and we had to wait till the twentieth century for pictures taken from spaceships and satellites to demonstrate its truth. Yet, long before this inference was confirmed by observation, mankind had accepted the 'fact' that the world was round.

The statement that 'the electron is invisible, but it exists,' is quite another matter, for there is no way that its existence can be verified through observation even with the most sophisticated of modern devices. The electron is so tiny that it can neither be weighed nor seen through a microscope. Attempts to view it are considered even to alter its properties. Yet, in the world of science, the electron is a reality. Why? Because, although the electron itself is not visible, its effects are experienced, and for these, no other explanation is forthcoming except the existence of the electron. It is, therefore, on the basis of such indirect observation that science postulates its existence and, indeed, it is in this way that many of the concepts of nuclear science have gained general acceptance. Why then do scientists

refuse to acknowledge that religious phenomena may be judged by the same intellectual procedures?

Moreover, broader-based studies have shown that this third criterion is far from being the final one. The truths 'established' by these means are mostly, as scientists would put it, 'technical truths'; whereas the magnitude and complexity of the universe goes far and beyond this. To be precise, the most significant truths begin from the point where the technical truths end. For instance, biological and physiological studies of the human body certainly reveal a large number of truths, which are profoundly meaningful, but uppermost in the hierarchy of truths are those, which relate to the beginning and end of human existence, and here our traditional studies of biology and physiology do not help us. As a western scientist has so aptly put it: "The knowable is unimportant and the important is unknowable."

To the list of criteria for acceptability, the modern mind has added that of there being no other explanation available, except that suggested by whatever aspects of the given phenomenon have

come within our experience. That is, that method of argument is also valid in which although the real fact is not directly observable, some such aspect of it comes to our experience from which the existence of a reality can be supposed. What is arrived at in this way is a working hypothesis, which may be discarded when facts come to light, which are more consistent than the initial findings. But even into this category, the modern mind will not permit religion to enter. It is regarded not only as being incomprehensible, but as being wholly wrong and without foundation. In fact, this last criterion is one, which could be used in support of religion. But on a purely material basis, exactly the reverse has happened. That is, to explain religious phenomena, physical explanations are offered, but, where none can be produced, religion is rejected as fallacious.

The case made out in modern times against religion is, however, marred by a major contradiction. On the one hand, the modern mind says that since religion is a collection of beliefs whose truths are impossible to demonstrate, we cannot, in consequence, expect a general acceptance of them. It is purely a matter of personal faith. On the other

hand, a host of philosophers and scientists now assert that modern discoveries have totally nullified religious beliefs leaving no question even of personal faith.

These statements would appear at first glance to have a certain consistency with each other, but in actual fact, they are mutually contradictory. If we concede that religion belongs to a domain, which lies *outside* the realms of logic, we must also grant that if its truth cannot be proved, then neither can its falsity. Antagonists of religion will not, however, see both sides of the coin. They insist on using the fact that religion belongs to a supra-rational sphere as if that were a scientific argument against it. Nor will they admit of any attempt on the part of religionists to make a positive rationalization of religion in scientific terms, again because they say scientific argument is simply not applicable to it.

This contradiction is not so much due to the fact that religion indeed belongs to a sphere in which scientific arguments cannot be applied to it, as to the fact that antagonists of religion do not want the same criterion, by which they have rejected religion,

to be brought forward by religious people to affirm its truths. They should, in that case, be obliged to admit to the reasonableness of religion. They can be likened to a court in which the lawyer for the prosecution may perform his duties, but in which the accused may not engage the services of a lawyer to defend himself. The presence of the official lawyer shows that the government does agree in principle that to deal with a case, a lawyer is required, but when the culprit wishes to invoke the same principle, the government turns against him for fear that he may benefit from it.

If the operative principle is that it is only whatever comes under our observation and within our experience, which is factual, then the claim of the anti-religionists will be justified only when they have discovered directly through observation and experiment the baselessness of religion. It will be only when their observation has been so acute and exhaustive that they are able to say with finality that whatever exists in the world and outside it has all been observed down to the smallest detail, and without the smallest exception, that they will be able to claim that there is neither God nor angels,

heaven nor hell. They may place themselves if they will, on a parallel with a man who walks all around a room, and, trusting to his normal eyesight, says that there are no elephants or tigers within the hundred cubic feet which make up the room.

Obviously the anti-religionists are in no position to make observations of the extensiveness or subtlety required. They would not even know where to begin. Then precisely what is the principle, which has supplied them with the basis for an argument against religion? Whatever it is, it is not based on the direct observation of religion, but on an interpretation of certain observations. For instance, the discovery of gravitation in the universe lead them to believe that there was no God who was sustaining the universe, since the law of gravitation explains this phenomenon. Obviously, the observation on which this theory is based is not of the non-existence of God. That is, no telescope has definitively given us the news that this universe is God-free. Rather, it has been inferred on the basis of an external observation that there should be no God. That is, the observation or experience was not one of the non-existence of God, but of another

event from which God's non-existence had been inferred.

I contend that this method of argument, which in modern times has been considered sufficiently valid to reject religion, is actually the greatest proof of its veracity. The fault does not lie in the principle of the argument but in its application. When correctly applied, the result will be quite the contrary.

Now let us turn from the negative application of this criterion to the positive. This same criterion has been applied supportively to organic evolution, and the latter has been accepted so fully in the modern world that it has affected all branches of knowledge. The truth of organic evolution cannot be proved by the first, second or third criterion. The 'proof of its truth can be based only on the fourth criterion, i.e. it is considered the best working hypothesis.

Yet in the eyes of the modern world, organic evolution is a 'scientific fact'. The writers of *Science of Life* assert that 'No one now denies the truth of organic evolution except for those who are ignorant, or biased or superstitious'. The Modern Pocket

Library in New York has published a series of books entitled *The Man and the Universe,* the fifth of which hails Darwin's book *Origin of Species* as an epoch-making work.

'Man has been making efforts for a long period to trace his geneology. No other concept has received as much religious opposition as that of Charles Darwin's natural selection theory. Neither has any other theory gained as much scientific affirmation as this one.'[1]

Another view expressed by a notable American scholar in *The Meaning of Evolution,* (New York, 1951, p. 127) is that Darwin was one of the greatest men in history, having made such a prominent contribution to the development of human knowledge. He gained this position because he proved quite finally that organic evolution was a fact and not a mere supposition set forth for the purpose of scientific research.

A. E. Mander writes:

> The theory of organic evolution that the species and varieties of living things have

undergone a process of evolution to 'become' what they are today as a result of a very long history of changes and developments — this theory has been proved by so many arguments that it can be called almost approximate certainty.[2]

Writes R.S. Lull:

Since Darwin's day, evolution has been more and more generally accepted, until now in the minds of informed, thinking men, there is no doubt that it is the only logical way whereby the creation can be interpreted and understood.[3]

He goes on to say:

All scientists and most informed men are now convinced of the truth of evolution, both inorganic and organic: that out of simple beginnings, when in the course of ages the earth was fit for organic habitation, life began and by a continual unfolding process there have come all of the marvellously adapted forms of animal and plant life which we see today.[4]

One can gauge the popularity of this theory by the fact that in his 700-page book, Lull has dealt with the concept of the special creation of life in just one page and a few lines, while the whole of the rest of the book is devoted to the concept of organic evolution. Similarly, the Encyclopaedia Britannica (1958) devotes less than a quarter of a page to the concept of creationism, while fourteen pages have been devoted to the concept of organic evolution. In this article too, the evolution of life has been postulated as a fact and it is stated that after Darwin, this concept has received general acceptance among scientists and the educated elite.

What precisely are those arguments in favour of organic evolution, which have caused scholars of the modern age to accept the 'truth' of this concept? Here, in order to analyse the nature of those arguments I shall deal with some of their more basic aspects.

1. The study of animal life shows that inferior and superior species exist. They range from the single-cellular to creatures with millions and billions of cells, as well as differing in the quality of their functional properties.

2. When this initial observation is linked with the fossils preserved in the various layers of the earth's crust, it is shown that there is an evolutionary order relative to the point in time they appeared on earth. The fossils of the life forms that inhabited the earth millions of years ago are still extant, buried in the earth. These fossils reveal that in ancient times, the animal species living on earth were simpler in form, then gradually evolved into more complex and developed forms -meaning thereby that all of the present forms of life did not come into existence at one point in time, but that the simpler forms came first and the more developed forms came at a later stage.

3. A salient point is that in spite of the obvious differences in the vast numbers of living creatures, the latter are marked by many resemblances in their biological systems. For instance, a fish resembles a bird; a horse's skeleton resembles a man's, and so on. It follows from this that all the living species are descended from the same family and have a common ancestor.

4. How did one species follow another? This

becomes clear to us when we consider that when an animal gives birth to many offspring, the latter, far from being uniform, are quite different from one another. This difference further develops in the next generations and goes on developing from generation to generation according to natural selection. After lakhs of generations this difference increases to the extent that a small-necked sheep becomes a long-necked giraffe. This concept is considered so important that Haldane and Huxley, the editors of *Animal Biology*, have coined the term, 'Selection of Mutation', for evolutionary changes.

It is this fourth criterion, which is cited to 'prove' the concept of evolution. That is, the supposition, or its effects, need not have come within our direct experience, but such observations have been made as help us to make a logical inference of the truth of the supposition, or, in other words, to verify the truth of the hypothesis.

The advocates of the theory of evolution have not yet, however, carried out any observations of or experiments on the material bases of this theory. For instance, they cannot show in a laboratory how

inanimate matter can give birth to life. The only basis they have for their claim is that the physical record shows that inanimate matter existed before life came into the universe. From this they infer that life came out of inanimate matter, just as a baby emerges from its mother's womb. Similarly the change of one species into another has not been experienced or observed. Experiments cannot be set up in a zoo to show how the mutation of a goat into a giraffe takes place. The inference that the species did not come into existence separately has been made purely on the basis of similarities between species and the differences that exist between siblings.

The belief, too, that intelligence has developed out of instinct, implies that man has also evolved from animals. But in actual fact, instinct has never been seen to develop into intelligence. This is also purely an inference based on geological research, which demonstrates that fossils of animals endowed with instincts are found in the lower strata, while those endowed with intelligence are to be found in the upper strata.

In all such arguments, the link between supposition and truth is one only of inference and not one of experiment or observation. Yet, on the basis solely of such inferential arguments, the concept of evolution in modern times has been considered a scientific fact. That is, to the modern mind, the sphere of academic facts is not limited only to those events, which are known by direct experience. Rather what logically *follows* from experiments and observations can be just as well accepted as established scientific facts as those facts, which come directly or indirectly under our observation.

This statement is, nevertheless, debatable. Sir Arthur Keith, who is himself a staunch supporter of organic evolution, did not regard the theory of evolution either as an empirical or as an inferential fact, but as a 'basic dogma of rationalism.'[5]

A reputed Encyclopaedia on Science describes Darwinism as theory based on 'explanation without demonstration'.

Why is it then that an unobservable, and non-demonstrable process is accepted as a scientific fact? A.E. Mander writes that it is because:

(a) it is consistent with all known facts;

(b) it enables scientists to explain vast multitudes of facts, which are otherwise inexplicable;

(c) it is the only theory devised which is consistent with the facts (p. 112).

If this line of reasoning is considered valid enough to bear out organic evolution as a fact, the same formula could well be used to establish religion as a fact. The parallel being evident, it seems paradoxical that scientists should accept organic evolution as a fact, while rejecting religion as having no basis in fact.

I am not concerned here with the truth or falsehood of the theory of evolution. What I am concerned with is the method of argument. It is common knowledge that whatever the criterion used to establish something, what has been 'proved' has the possibility of being right or wrong. The history of science shows that concepts have gone on changing, sometimes because greater minds have applied themselves to them, and sometimes because the

field of scientific discovery has been widened by the increasing sophistication and rapid evolution of modern technology. Therefore, holding any given method of reasoning valid does not mean necessarily that the particular method must surely be right. And the possibility must always be kept in mind that the conclusions arrived at may be wrong. The validity of both criteria and conclusions are inevitably open to the challenge of subsequent discoveries.

Of the fourth method of reasoning, it can be said that there is no direct link between hypothesis and observation; it is solely inference which provides the necessary connection. Then why should it be taken for granted that our inference is necessarily correct? In making inferences it is quite possible to err, but this probability of error should not affect the validity of the criterion in question. If it is possible to doubt the validity of the criterion because of a perceived error in inference, then on the same grounds, other criteria will also be exposed to doubt. Consider that it is on this that the whole edifice of our modern science rests.

There is no question of all established scientific concepts having been the result of, or having been confirmed by observation and experiment. Certain theories have been developed on the basis of a purely external approach. Here what links theory and observation is actually inference. When a scientist says, 'Electricity means a flow of electrons, he does not mean that he has seen electrons flowing along an electric wire by means of a microscope. All he is actually doing is explaining an observed chain of events, which entails turning on the switch that makes the bulbs light up, the fans rotate and the factories start functioning. Thus, what has come within his experience is simply an external phenomenon, and is not by any means the inferred event. In this respect, all scientific concepts are inferences arrived at by applying the fourth method of reasoning.

The only difference, it would appear, between the third and fourth criteria, or methods of reasoning, is that according to the third, experiment or observation is directly related to hypothesis, while in the case of the fourth, there is no direct relation between hypothesis and observation or experiment.

But this difference loses its importance when we consider that however related or direct an experiment may be, the object perceived is, in any case, a purely external manifestation of reality. It is in no way the reality itself which is under observation. It is similar to a telephone number bearing an obvious relation to the owner of the telephone, but in no way itself being the owner of the telephone. It is as if here, too, what connects a scientist's observation and experiment to the reality is a thing, which exists only in his mind that is, the capacity to make inferences, and not his ability to observe, or carry out experiments. That is why a scientist says, 'Theories are mental pictures that explain known laws.'

Thus, although the turning on of a switch indicates that there is a special relationship between the switch and the bulb, in spite of this demonstration, the real relationship is invisible. It is again our powers of inference, which connect the switch and the bulb with each other. Therefore, even after conceding this observed relationship between the switch and the bulb, whether or not the scientific hypothesis regarding this connection is true or false

will still remain debatable. Just as such doubts and the probability of error do not prevent a scientist from regarding prima facie findings as correct, and basing theories upon them, which in turn are regarded by him as correct, so philosophers and religious scholars may take the knowledge which derives from revelation, base theories upon it, and consider them correct.

1. *Philosophers of Science,* p. 244.
2. Clearer Thinking, pp. 112-13.
3. Richard Swann Lull, *Organic Evolution,* New York, Macmillan, p. 15.
4. *Revolt Against Reason.* pp. 111-12.
5. *Ibid*, p. 83.
6. *Ibid*, pp. 111-12.



2. THE VIEWS OF BERTRAND RUSSELL

It was in 1966 that I decided to study the works of Bertrand Russell (1872-1970). Fortunately, I found a whole set of his books in a nearby library. But when I arrived home with this pile of books my wife was shocked. "Now you will surely go astray!" she exclaimed. It has to be accepted that Russell is the most extreme of all the atheists of the modern age, and his writing is so persuasive that one does run the risk of turning atheist after having read him. But by the grace of God, I entered into Russell's world, then re-emerged with my faith not only intact, but greatly fortified.

Of all the modern philosophers, Russell has carried out the most broad-ranging of studies. The only possible parallel to his work is that of Whitehead, a contemporary and fellow-intellectual. Russell himself said of his life's work, which extended over almost an entire century: "There is only one constant preoccupation: I have throughout been anxious to discover how much one can be said to know and with what degree of certainty or doubtfulness."[1]

For this purpose, Russell made a special study of four branches of science — physics, physiology, psychology and mathematical logic.[2]

On the basis of these studies, he sets aside the sceptical viewpoint: "Scepticism is psychologically impossible."[3]

Here man faces a two-sided difficulty. On the one hand, if we concede that ultimate truth is beyond us, by what compass are our lives to be guided? On the other hand, when we strenuously try to penetrate life's mysteries, success seems awesomely remote.

"Philosophy from ancient times has made long claims, but what it has achieved is far less as compared to other sciences."[4]

In spite of life-long effort, even Russell himself could not put forward a coherent philosophy. In the words of Professor Alan Wood: 'Bertrand Russell is a philosopher without a philosophy.'

Logic and mathematics have together been considered a means of apprehending reality, but according to

Russell: 'Logic and mathematics ... are the alphabet of the book of nature, not the book itself.'[5]

Russell holds that knowledge is of two kinds: 'knowledge of things and knowledge of truths.'[6]

Expressed differently, knowledge of things is the knowledge of sensible facts. But sensible facts alone are not all that there is to the matter. There are truths which are inherent in the nature of things but which cannot, in themselves, be perceived. The way to arrive at these truths is by inference based on sensible facts. To Russell, inference can be valid, but it must be scientific inference.[7]

Of things, which we learn by direct observation, with no recourse to inference, he says: "I have come to accept the facts of sense and the broad truths of science as things which the philosophers should take as data." This data consists of our observed sensations: visual, auditory, tactile, etc. But he then goes on to say that our scientific ideas, or concepts about the universe are not knowable through our observed sensations. Rather, our knowledge of the world is the result of inference. He even adds: 'People's thoughts are in their heads.'[8]

After an extensive study, he came to the conclusion that much too much emphasis had been laid upon experience, and that, therefore, empiricism as a philosophy must be regarded as having important limitations (p. 191). He goes on to say: "I found that almost all philosophers had been mistaken as to what can and what cannot be inferred from experience alone" (p. 194).

Later he adds:

> Unfortunately, theoretical physics no longer speaks with that splendid dogmatic clarity that it enjoyed in the seventeenth century. Newton worked with four fundamental concepts: space, time, matter and force. All four have been swept into limbo by modern physicists. Space and time, for Newton, were solid, independent things. They have been replaced by space-time, which is not substantial but only a system of relations. Matter has had to be replaced by series of events. Force, which was the first of the Newtonian concepts to be abandoned, has been replaced by energy; and energy turns

> out to be indistinguishable from the pale ghost, which is all that remains of matter. Cause, which was the philosophical form of what physicists called force, has also become decrepit. I will not admit that it is dead, but it has nothing like the vigour of its earlier days.[9]

After life-long study and research he arrived at the conclusion that 'non-demonstrable inference is also valid.' (p. 204) Without this the whole system of science and day-to-day human life would be paralysed. According to Russell, science covers both the real world and the world as it is believed to be. The more science advances the greater the role of what is held to be credible. Because, in science there are some things known as observed facts, and everything beyond them is the scientific abstraction, which is inferred on the basis of observation. 'The Philosopher is thus compelled to investigate the relation between observed facts and scientific abstractions. Universal skepticism cannot be refuted, but also cannot be accepted.'[10]

As for what has been accomplished by philosophical speculation, he says that his reason

for accepting 'the broad truth of science as things which the philosopher should take as data' is that even though 'their truth is not quite certain, it has a higher degree of probability than anything likely to be achieved in philosophical speculation.'[11]

Another passage from the same book completes the picture of Russell's views, which we have attempted to present here:

> It is not always realized how exceedingly abstract is the information that theoretical physics has to give. It lays down certain fundamental equations that enable it to deal with the logical structure of events, while leaving it completely unknown what is the intrinsic character of the events that have the structure. We only know the intrinsic character of events when they happen to us. Nothing whatever in theoretical physics enables us to say anything about the intrinsic character of events elsewhere. They may be just like the events that happen to us or they may be totally different in strictly unimaginable ways. All that physics gives us

> is certain equations giving abstract properties of their changes. But as to what it is that changes, and what it changes from and to — as to this, physics is silent.[12]

Russell concludes the chapter, "Non-Demonstrable Inference" with the caution that "— there is no such claim to certainty as has, too often and too uselessly, been made by rash philosophers" (p. 207).

When the accepted philosophical and scientific position is such that we can only observe external appearances without it being possible for us to learn the intrinsic character of things directly, there are only two ways open to us: either to take refuge in skepticism or to admit the truth of religion. Since research has shown that direct knowledge is impossible, it would appear that one must resign oneself to saying: "I do not know anything." But Russell does not accept this position. He asserts that the inference which is based on external appearance regarding the intrinsic character of things is also valid. In so saying, he arrives close to the very frontiers of religion, which also holds that man, owing to his limited sense perceptions, cannot

perceive reality in its full and final form. It is only from his observation of the visible things in the universe that he can infer the reality behind it. It is strange that a man as intelligent as Russell should reject scepticism just as he rejects religion. He forgets that by adopting such a position, he is guilty of contradicting his own standards.

Russell clearly asserts that even such beliefs are valid as have not been experienced, and he has committed himself to such 'beliefs', for instance, as concern the most ancient and least explored parts of the earth, as well as the furthermost reaches of the universe, which have been studied by astronomy. Here is a quotation from his book, *Human Knowledge:*

"I commit myself to the view that there are valid processes of inference from events to other events .... more particularly, from events of which I am aware without inference to events of which I have no such awareness (p. 10).

He takes the same line in his book, *My Philosophical Development:* "I do think that there are forms of probable inference which must be accepted

although they cannot be proved by experience ... "(p. 132).

According to this clear admission on the part of Russell, religion is not something, which cannot be proved by argument: in the above quotation the criterion held valid by him is the same criterion as is used to prove the truth of religion.

What is more surprising is that Russell, although indirectly admitting here that such inferential arguments as he terms scientific do exist in favour of religion, he actually rejects those arguments on quite casual grounds.

Here I quote from his book, *Why I am Not a Christian:*

> I think all the great religions of the world – Buddhism, Hinduism, Christianity, Islam, and Communism — both untrue and harmful. It is evident as a matter of logic that, since they disagree, not more than one of them can be true. With very few exceptions, the religion which a man accepts is that of the community in which he lives, which makes it obvious that

> the influence of environment is what has led him to accept the religion in question. It is true that Scholastics invented what professed to be logical arguments proving the existence of God, and that these arguments, or others of a similar tenor, have been accepted by many eminent philosophers, but the logic to which these traditional arguments appealed is of an antiquated Aristotelian sort which is now rejected by practically all logicians except such as are Catholics. There is one of these arguments, which is not purely logical; I mean the argument from design. This argument, however, was destroyed by Darwin; and, in any case could only be made logically respectable at the cost of abandoning God's omnipotence" (p. 9).

The most important point here is that Russell has considered the argument from design as being valid. But while accepting this in principle, Russell says that Darwinism has altogether destroyed its logical position or, at least, has lessened its importance to a considerable degree.

Let us throw some light on Russell's statement. What he means to say is that it is the claim of religion that there is design in the universe, which is a proof that there is some consciousness behind it, which has accorded it this 'design'. Had it not been so, the universe would have been a pile of garbage, and to Russell, this argument is true in principle. But then he says that Darwin has proved from his study of biological species that various species of life which exist on earth in organized and meaningful form have, in fact, evolved over a period of millions of years through a process of material action and interaction. For instance, the giraffe was not created, but evolved from the goat after a long process of natural selection.

I do not want to dwell in detail on Darwinism, suffice it to say that Russell, while admitting the validity of the argument in principle, has rejected the very same argument on very flimsy grounds.

First and foremost, it must be borne in mind that Darwinism is an unproved theory. The only thing that it can be said to indicate is that all forms of life did not appear on earth at one and the same

time, but that the different species had their origin at different points in time. Further it shows that there was a particular sequential order, that is, the simpler forms of life appeared first, and the more complex followed later. Yet there is absolutely no proof that the more complex and more meaningful forms of life have actually developed from those simpler forms which supposedly came into existence on their own as a result of material action and interaction. The first point was undoubtedly derived from observation, but the second point is entirely an inference of the evolutionists whose argument is certainly not based on actual observation, and cannot therefore be demonstrated. The validity of Russell's argument, however, rests on the proof of the second aspect of evolution.

This weakness in the theory of evolution is admitted by the very scholars who uphold it. For instance, Sir Arthur Keith says: "Evolution is unproved and unprovable. We believe it only because the only alternative is special creation, and that is unthinkable."

That is why the issue of evolution has two such distinct aspects to it. One is its theory, and the other is its cause. The theory of evolution is said to be a certainty, whereas the cause of evolution is as yet unknown. How is it possible for a concept to be believed with such certainty when the causes are unknown? It is like saying that the concept of evolution is a theory for which arguments have yet to be discovered, but which has nevertheless been accepted by the evolutionists as an established fact.

That such an ill-founded concept could destroy all arguments in favour of religion is plainly untenable. Even were we to suppose that the different living species came into being through a process of evolution, Russell's claim still cannot be proved. Belief in Russell's claim entails belief in the supposition that God could create only at one point in time and that he could not continue to give life over a long period. Not only is there no basis for this hypothesis, but, even were it acceptable, it would in no way refute the omnipotence of God.

There is a time-honoured belief that it was an omnipotent God who created amongst other things,

man and the trees. But this has never shaken man's belief that it takes anything from twelve to eighteen years for a baby to grow to full adult height, followed by a process of maturation which goes on for many more years, or that it can take more than half a century for a tree to grow from a seed to its greatest height. In order to believe in Almighty God, it has never been thought necessary to believe that the man and the tree came into existence all of a sudden.

Even if, in future, research proves that the phenomena of life did not appear abruptly, but came into existence by means of a long evolutionary process, there can be no question of a rethinking of, far less a rejection of religion.

A FINAL WORD

The above-quoted statements of Bertrand Russell, an avowed atheist, serve as an acknowledgement of the truth of religion in principle. He admits that there is design in the universe, and that design can prove the existence of a designer. But in order to reject this argument based on design, he has had to have recourse to Darwinism, which means rejecting his own accepted position on very flimsy

grounds. This is because the existence of design is a unanimously established fact, whereas Darwinism is not an established fact. At least, that part of the theory of evolution which asserts that, by material action and interaction, meaningful design can come into existence among living species is certainly still only a hypothesis. When the design exists, the argument in favour of a designer is, according to Russell, valid. Since Darwinism has yet to be acclaimed as a final truth, a 'Russell' can hardly on this basis, reject arguments in favour of religion.

1. *My Philosophical Development p. 11.*
2. *Ibid. p.16.*
3. *Human Knowledge, p.9.*
4. *Our Knowledge of the External World.* p.13.
5. *My Philosophical Development.* p.277.
6. *The Problems of Philosophy,* p.46
7. *My Philosophical Development,* p.46.
8. *Ibid.*, p.25.

9. *Ibid*., p.I7.

10. *Ibid*., p.206.

11. *Ibid* ., p.207.

12.*Ibid*., pp. 17-18.

3. THE MECHANICAL INTERPRETATION OF THE UNIVERSE

In the eighteenth and nineteenth centuries, when Science discovered a system of cause and effect operating in the universe, the atheistic philosophers of the time enthusiastically welcomed it, for it provided a scientific alternative to God. The Scientists, however, did not for their part interpret this law of nature in that way. For instance, to Newton, that was simply the way that God worked. He believed that it was through cause and effect that God made manifest His will throughout the universe. But those who were building up their philosophy in the light of scientific discoveries found in it a 'proof' for atheism, and based upon it a whole system of thought.

On the law of causation, Sir James Jeans has this to say in his book *The Mysterious Universe:*

> Confronted with a natural world, the first question that comes to mind is as to who is its Maker and who is the Sustainer of the Grand Machine. In ancient times man held that there

> were many invisible beings who were the lords of this Universe. And that a number of mini-gods were running the machine, under one great God. Still, many hold such beliefs. But in the academic (scientific) world this concept has generally been abandoned. The modernists of today subscribe to atheism rather than polytheism. They think that the universe is not an act of an intelligent being but is rather the result of chance occurrence. This principle of causation was found to dominate the whole of animate nature (p. 13).

The concept which came to be known as, "the mechanical interpretation of the universe" was thus developed. It came to be 'established' that all events occurred without any external intervention. The entire process was material. Thus the whole universe was seen as being tied to the chain of cause and effect.

According to an article published in 1874 and recorded in *Chambers Encyclopaedia,* Vol. II, p. 691, philosophers of physics, chemists and biologists were convinced that a particular cause invariably

showed the same result. If this concept was successful in one instance, they felt assured that they would always succeed in producing the same result. In the physical sciences, therefore, no discrepancies were to be found in the law of causation. It was only in metaphysics that the system of cause and effect did not work.

But this happy state of affairs was short-lived; with the beginning of the twentieth century, many facts came to light in the world of science, which were not consistent with the mechanical interpretation. For instance, numerous experiments which were carried out to determine the cause of radioactivity (a spontaneous disintegration of certain unstable types of atomic nuclei — as happens with radium) met with no success. Even today, we do not know what causes the breaking away of a particular electron in a piece of radium from its atomic system. The same mystery surrounds the magnet’s power to attract iron. Many theories have been put forward to explain this phenomenon. Sir James Jeans having attempted to analyse this fact, concludes that we do not know why a magnet attracts iron. “Perhaps it has been ordered to do so by its Creator.”

This resistance to analysis is not confined just to radium and the magnet. In-depth studies have shown that in the past, the supposed causes of events were actually superficial aspects of fundamental events. In actual fact, we do not know why any event takes place, we do not even know why we sleep at night.

After prolonged deliberations, it has been established in the world of science that the law of causation is not the absolute reality it was understood to be in the 19th century. (Over the last fifty years a number of authoritative books have been published which support this theory). The traveller in science has returned to his point of departure: the system of this world is not functioning because of the chance existence of the law of cause and effect, but because there is a conscious mind operating it at will. The reasoning of science has come full circle, leaving the field to religion to offer an account of reality.

Let us examine the theory that twenty billion years ago, the universe with all its suns, stars and planets as we know them did not exist, and that space was

scattered over with matter, not in solid form, but in the form of basic particles — electrons and protons. At that time matter was static and in perfect equilibrium. From the mathematical viewpoint, this balance was such that any disturbance whatsoever, no matter how slight, was bound to affect it in its entirety and was also bound to go on increasing. If we concede the initial disturbance, we can fall in with the mathematicians' view that all other subsequent events are explainable by mathematics. The theorists liken the disturbance in the 'cloud' of matter to the churning up of a tub of water by a human hand. But, in the peace and quiet of the universe, *who* or *what* brought about this disturbance? Despite the fact that nothing whatever is known about this, the assumption has gained ground that such an event did take place, that the disturbance went on and on increasing, that, as a result, matter began to collect at isolated points and that it is these collections of matter which are now known severally as stars, planets and meteors.

This is one explanation of the universe given by science. But what a poor, flimsy explanation it is! Scientists themselves do not feel that it carries any

great conviction. Though claiming to have discovered the first cause of the universe, to which it gives the name of chance, it cannot say who or what caused the first motion in the universe. And that is its greatest weakness. The question is, when there was supposed to be only static matter in the universe, and presumably nothing else existed, how did this strange kind of chance come into existence, which set the whole universe in motion? When the causes of this event were neither within nor without the imagined matter, how did this event come to occur? This is a very strange and contradictory contention, for it postulates one event leading on to another, and so on, ad infinitum, but it makes no mention of the primary cause which is supposed to have set off the whole chain reaction. It begins, ostensibly, with an event, which has no cause. On this baseless supposition stands the whole edifice of the chance origin of the universe.

Suppose we accept that the universe came into existence in a purely fortuitous way. Were events then bound to take the exact course that they did? Was no other course open to them? Is it not conceivable that the stars could have collided with

one another and been destroyed in the process? Was the original motion *of necessity* an evolutionary process, rather than just a simple movement? And was it essential that with this astonishing continuity the present universe should have been brought into existence? What was the logic, after all, which made the stars, after they were formed, move through the vastness of space with such perfect precision and regularity? And what was the logic, which brought about the formation of the solar system in a far corner of the universe? What was the logic, which was responsible for those extraordinary changes in our earth, which enabled life to begin and then survive? And it should be borne in mind that these transformations that occurred on earth have not been found replicated in any other place in the vast, countless worlds in the universe. Then what was that unique logic which caused life to grow from lifeless matter? Is there, in fact, any reasonable explanation of how life came into existence on earth and how, extraordinarily, the tendency developed to evolve continuously?

Then again, what was the logic, which created all those astounding things in this speck of the

universe, which were necessary to life and civilization? And what is the logic, which maintains the continuum of these conditions? Is just the coming about of one chance event sufficient reason for all these events to go on flawlessly, unceasingly, for millions and millions of years, without the slightest aberration? Are there any real grounds for accepting that an allegedly chance or accidental event can spontaneously develop the attribute of continuous evolution?

In spite of these suppositions resting on such shaky premises, they have been almost universally accepted as an 'answer' to the question of the origin of the universe. This is a question whose answer leads to another, more important question: *"Who* makes this great machine move with such perfect regularity?" The creator — chance — cannot be held to be the Lord of the Universe. Such an explanation would, by its very nature, require two 'gods'. The first movement might conceivably be attributed to chance, but not so the subsequent continuous motion. We should have to find another 'god' to fit that explanation.

The establishment of the principle of causation appeared to offer a solution. A cause was found invariably to produce the same effect. What happened at any instant did not depend on the volitions of extraneous beings, but followed inevitably by inexorable laws from the state of things, at the preceeding event. And this state of things had in turn been inevitably determined by an earlier state, and so on indefinitely, so that the whole course of events had been unalterably determined by the state in which the world found itself at the first instant of its history; once this had been fixed, nature could move only along one road to a predestined end. In brief, the act of creation had created not only the universe but its whole future history. Thus the law of causation took charge of all such events as had previously been assigned to the actions of supernatural beings.

The final establishment of this law as the primary guiding principle in nature was the triumph of the seventeenth century ... Out of this resulted a movement to interpret the whole material universe as a machine, a movement which steadily gained force until its culmination in the latter half of the

nineteenth century. It was then that Helm Holtz declared that 'the final aim of all natural science is to resolve itself into mechanics,' and Lord Kelvin confessed that he could understand nothing of which he could not make a mechanical model ... It was the age of the engineer-scientist, whose primary ambition was to make mechanical models of the whole of nature.

Although scientists had not yet succeeded in explaining all of the manifestations of this universe according to this principle, this want of success failed to shake the belief that the universe must in the last resort admit of a purely mechanical interpretation. It was felt that only greater efforts were needed, and the whole of inanimate nature would at last stand revealed as a perfectly acting machine.

All this had an obvious bearing on the interpretation of human life. Each extension of the law of causation, and each success of the mechanical interpretation of nature, made the belief in free-will more difficult. For if all nature obeyed the law of causation, why should life be exempt?

Out of such considerations arose the mechanistic philosophies of the seventeenth and eighteenth centuries. Science appeared to favour a mechanistic view which saw the whole material world as a vast machine ... Then came the discovery that living cells were formed of precisely the same chemical atoms as non-living matter, and so were presumably governed by the same natural laws. This led to the question of why the particular atoms of which our bodies and brains were formed should be exempt from the laws of causation. It began to be fiercely maintained, that life itself must, in the last resort, prove to be purely mechanical in its nature. The mind of a Newton, a Bach or a Michaelangelo, it was said, differed only in complexity from a printing press; their whole function was to respond exactly to the stimuli they received from without.

But science today does not adhere to this rigid and unbalanced principle of causation. The theory of relativity calls the principle of causation an illusion. At the end of the nineteenth century it was first revealed to science that many of the phenomena of the universe, radiation and gravitation in particular, defied all attempts at a purely mechanical

explanation. While philosophers were still debating whether a machine could be constructed to reproduce the thoughts of Newton, the emotions of Bach or the inspiration of Michelangelo, the average man of science was rapidly becoming convinced that no machine could be constructed to reproduce the light of a candle or the fall of an apple ... The old science had confidently proclaimed that nature could follow only one road, the road which was mapped out from the beginning of time to its end by the continuous chain of cause and effect. [2]

But finally science had to admit that the past of the universe could no longer be so adamantly claimed as the cause of the future. In the light of modern knowledge, a great majority of scientists are in agreement that the river of knowledge is leading them to a non-mechanical reality.

Regarding the origin of the universe and its movement, both the theories which have been advanced in the course of scientific progress still fail to carry conviction. Modern research does not strengthen their basis, but rather undermines them. Thus science itself is contradicting its own theories.

Man has now returned to the point of departure, which he had at first abandoned in order to launch himself into deep, uncharted waters.

1. *The Mysterious Universe,* p.18.
2. Based on *The Mysterious Universe.*

4. RELIGION AND THE LIFE HEREAFTER

"The crux of religion is indubitably the belief in the life hereafter." So says Allama Shibli Nomani (1857-1914) under the heading of 'Life after Death' in his famous book, *Al Ghazzali*. He goes on to say that it is because of this belief that religion has had an impact on human activities. Yet, despite its being the single most important belief in religion, it has been open to question. He quotes a Bedouin poet who, addressing his wife, expresses this most succinctly:

> Death, rebirth,
>
> My dear: it is all nonsense.

Shibli feels that the first and most difficult hurdle to be surmounted is acceptance of the fact that the spirit survives as an entity in its own right, quite independently of the body. The materialists for their part think of the soul as being just one more ingredient in the body, in the way that a chemical element is inextricably a part of a compound, or

they regard it as being a particular property of the faculties of thought and sense perception, on a parallel with the melody which results when notes of a musical instrument are struck in a particular sequence. Drawing extensively on two of Imam Ghazzali's books, he observes that the description of the soul and the arguments which Ghazzali has mentioned are all derived from Greek philosophers. Aristotle in his *Theology* has said the same and Avicenna has reiterated this in his own language. But the strange thing is that Ghazzali has left out the point, which is of prime importance in the discussion of spirit or soul. Soul has no body. It is an essence. Its being purely non-material makes it of the first importance to prove its existence. As Shibli himself observes:

> The existence of the soul is a matter of intuition. After pondering over it, we come to know that the faculty of reason is not merely a property of matter. Matter is a lifeless thing. Without reason, you cannot find sublime ideas, arts and sciences and scientific disciplines in matter. These are delicate substances, quite other than matter, which

> account for creativity in the fields of the arts and the sciences. Matter cannot have a creative faculty. This is an attribute of the soul ... After proving the existence of soul as something separate, the second stage is to prove its survival, that is, its capacity to survive after the death of the body (pp. 171-72).

As a corollary to this he adds: 'Though Avicenna has presented lengthy arguments about the existence of the soul, these are nothing but word games—or tautology—just like other Greek philosophic thoughts. If an atheist bent on denying its existence says, "What you have said is just a kind of repetition of your claim. It has nothing to do with the argument but is a reiteration of your initial statement and may be matter is itself responsible for its kaleidoscopic manifestations after combining in a particular way; the working of a machine and the music of a musical instrument are similar things, but without having any kind of spirit. There is no logic by which he can be reduced to silence. That is why Imam Ghazzali did not produce any logical argument about the soul" (p.175).

Shibli Nomani ends the discussion at this point. And of a work dating back to 1901, we could hardly expect more.

Modern research, however, has opened up new vistas of events and realities, so that we can now assert to a certain extent that the permanent existence of the soul, independently of the body, or the survival of the soul after the death of the body is no more a thing which involves blind faith; rather it has become a reality which can be empirically proved.

Science has discovered that the body is composed of innumerable tiny cells, the number of which in an average body is placed at one thousand, one hundred million. These cells disintegrate each moment, but our diet makes up for those destroyed cells and they are replaced with new ones. The body is thus like a building which is composed of billions of bricks but which is in the process of replacing its bricks at every moment. Now, if the soul is a phenomenon of the body, then with the disintegration or changing of the cells of the body, the soul should simultaneously undergo the same

transformation, just as a whole machine is affected when one part of it is broken, or as the breaking of a single string affects the tone of a musical instrument. But such is not the case with the soul. This shows that the soul is independent of the body and has its own existence. This is why a scientist has said, "Personality is changelessness in change," that is, the human personality is self-existent (as compared to the body), keeping its existence in changeless form amidst continuous changes.

Further proof of the truth of this concept is provided by the discovery in the field of psychology of the 'unconscious' or the subconscious' — a major part of the human brain. It has been established that the thoughts stored in the unconscious remain in exactly the same condition until death. Freud writes in his thirty-first lecture:

> The laws of Logic — above all, the law of contradiction, do not hold for processes in the Id. Contradictory impulses exist side by side without neutralizing each other or drawing apart; at most they combine in compromise. There is nothing in the Id, which can be com-

> pared to negation, and we are astonished to find in it an exception to the philosophers' assertion that space and time are necessary forms of our mental acts. In the Id there is nothing corresponding to the idea of time, no recognition of the passage of time, and (a thing which is very remarkable and awaits adequate attention in philosophic thought) no alteration of mental processes by the passage of time. Conative impulses which have never got beyond the Id, and even impressions which have been pushed down into the Id by repression, are virtually immortal and are preserved for whole decades as though they had only recently occurred.

The processes of the Id being independent of time shows that the unconscious has its own independent existence; it has been established that the body is subject to the laws of time and space and that it is in space and time that all its actions take place. Now if the soul is simply an extension of the body, then, like the body, it too should be subject to the laws of time and space. Since observation has shown that this is not so, there is

the inevitable inference that the soul by its very nature is something separate from (though not extraneous to) the body and that it exists independently. The relation of the soul to the body is not comparable to that of a machine and its movement, nor to that of a musical instrument and the music it produces. Had there been any basis for this comparison, the same laws, which apply to the body, would have affected the soul.

A branch of modern psychology which makes an empirical study of man's supernatural faculties—psychical research—does establish the existence of life after death at a purely observational level. What is most interesting is that such research does not establish mere survival; rather it establishes the survival of exactly the same personality—the entity that was known to us before death.

Man has possessed many other analyzable traits right from the very beginning, but it is only comparatively recently that they have been analyzed scientifically. For instance, dreaming is one of the oldest known activities of man. But ancient man was unaware of the psychological

relevance of dreams, the facts of which have come to light only after recent scientific research. Even more interesting are quite other manifestations of the human spirit, the recent facts and figures of which give strong indications of the existence of extra-sensory perception and of the objects of this perception.

The first institution to conduct research in this field was established in England in 1882. It still exists today under the name of "Society for Psychical Research." It began its work on a large scale in 1889 by contacting 17,000 people who were asked whether—when they believed themselves completely awake—they had ever had a vivid impression of seeing, or being touched by a living being (who was not actually there) or inanimate object which moved apparently of its own volition or of hearing a voice which, so far as they could discover, was not due to any external physical cause. Many other countries followed suit and, by means of various experiments and demonstrations, it was shown that even after bodily death, the human personality survives in some mysterious form.

In his book *A Philosophical Scrutiny of Religion,* C.J. Ducasse observes:

> These facts strongly suggest that the universe, and the human personality, each have a dimension additional to the material one so capably and successfully explored by the natural sciences (p. 422).

Many other scholars who have objectively examined the evidence furnished by psychical research have felt compelled to accept the life hereafter as a matter of fact. C. J. Ducasse, Professor of Philosophy at the Brown University, has made a philosophical and psychological scrutiny of this concept. He does not believe it in the sense in which it is presented by religion, yet he holds that apart from the dogmas of religion, such evidence do exist as compel us to accept the survival of life after death. After making a general survey of various investigations in the field of research, he observes:

> Some of the keenest-minded and best-informed persons, who studied the evidence over many years in a highly critical spirit, eventually came to the conclusion that, in

some cases at least, only the survival hypothesis remained plausible. Among such persons may be mentioned Alfred Russel Wallace, Sir William Crookes, F.W.H. Myers, Cesare Lombroso, Camille Flammarion, Sir Oliver Lodge, Dr. Richard Hodgson, Mrs. Henry Sidwick and Professor Hyslop, to name only a few of the most eminent".

This suggests that the belief in a life after death, which so many persons have found no particular difficulty in accepting as an article of religious faith, not only may be true but is perhaps capable of empirical proof; and if so, that, instead of the inventions of theologians concerning the nature of the postmortem life, factual information regarding it may eventually be obtained.

That, in such a case, the content of this information will turn out to be useful rather than not, for the two tasks which it is the function of religion to perform, does not, of course, automatically follow.[1]

The author, while accepting life after death as

a reality, has refused to accept the religious nature of this same phenomenon. This is only a matter of his own personal predilections. The truth is that if life survives after death, there can be no interpretation other than a religious one.

1. C.J. Ducasse, *A Philosophical Scrutiny of Religion*, p.412.

5. RELIGION AND SCIENCE

The words religion and Science have vast connotations. Religion is generally understood to mean the recognition of the existence of a supernatural ruling power, the creator and controller of the universe, who has given to man a spiritual nature, which continues to exist after the death of the body, and of man's duty to be obedient to this power. As a concept of life, it is all-encompassing. Science, on the other hand, is the study of the perceptible world. Both are extremely broad-ranging subjects, and their respective spheres are in many aspects quite separate from each other. It is not my intention here to go into the details of these two subjects, but to deal only with the clash — real, or unreal — which has taken place between science and religion on an academic level, and certain of its consequences. One of the reasons for this clash is the claim that scientific discoveries have proved religion baseless, and it is principally this point on which I wish to focus attention.

The traditional conflict between science and religion made itself felt in the eighteenth and nineteenth

centuries. It was during this period that, in the light of new scientific discoveries, many came to feel that there was no further call to believe in God. One of the most compelling reasons for believing in God, amongst others, was that without this belief, the universe was inexplicable. The antagonists of religion were quick to point out that we no longer required the 'God' hypothesis when there was no aspect of the universe, which could not be explained quite easily by the findings of scientific research. To them, the idea of God was redundant and, therefore, baseless.

This claim was quite flimsy from the academic or logical point of view even at the time it was made, and now science itself has admitted, directly or indirectly, that it had no satisfactory ground for making such a claim.

Of what nature was this discovery of science, which attempted to convince, people that there was no further need for the concept of God? It was no more than the discovery that the universe is bound by certain laws. In ancient times, man had simply believed that all happenings in the world were

directly attributable to God. But modern findings revealed that behind every event there was a cause, which was discoverable by observation. For instance, Newton observed that all the stars and planets in the vastness of space are bound by certain immutable laws and move in strict accordance with those laws. Darwin's research showed that man had not come into existence through an act of special creation but had evolved, in consonance with general material laws, from the lower species and had gradually developed into *homo sapiens,* i.e. man as we now know him. Similar observational studies showed that all events seemed to occur as part of a known system called the 'Law of Nature.' Significantly, this law of nature functioned with such effective regularity that it was considered entirely predictable.

These discoveries were taken to mean that the universe, which we had regarded as God's domain, was actually subservient to a set of material and physical laws. When these laws were applied, they yielded consistent results, and this further convinced members of the educated elite that they were right in embracing atheism. The German

philosopher, Kant, declared: 'Give me matter and I shall demonstrate how the world is made out of matter.' Haeckel even went so far as to say that, given water, chemical elements and time, he would be able to create a man. Nietsche proclaimed with triumphant finality, 'God is dead.' Another belief had it that the creator and sustainer of this universe was not an alive, intelligent being possessing power; that the universe, from beginning to end, was material. All movements and all manifestations of the universe, whether related to life or to lifeless matter were nothing but blind material processes. The world discovered by science evinced no signs whatsoever of the hand of God — which is surely the basis of all religions. Then how could it be considered rational to believe in God?

All the heroes who had discovered the laws of nature were believers in God, but, ironically, when their research was brought before the public, it was thought that their discoveries had rendered meaningless the very existence of God. Since, in order to explain events, one had only to have recourse to the causes and laws of the material universe, there seemed to be no need to postulate

the existence of a God who was extraneous to that universe. It was said, for example, that the rising and setting of the sun had not been properly understood until telescopes had been made and mathematics developed. The former ascription of these phenomena to the will and power of supernatural beings had been due merely to man's poor comprehension of these matters. And now that astronomy had proved that there was a universal system of gravitation, which controlled the movements of the sun, moon and stars, there was no further need to believe in God. Gradually, all those happenings in nature, which were supposed in ancient times to have invisible superhuman forces at work behind them, were shown to be the results of the action and reaction of the forces of nature. It was as if, after the natural causes of events had been described in modern scientific terms, belief in God should automatically cease. Julian Huxley, in his book, *Man in the Modern World,* says:

> If the rainbow is generated by the refraction of the sun's rays on falling rain, it is not set in the sky as a sign by God. If the plague is inevitably generated by the Bacillus pestis and

> spread by rat-fleas, an outbreak of plague can no longer be looked on as sign of divine wrath. If animals and plants have slowly evolved through hundreds of millions of years, there is no room for a creator of animals and plants, except in a metaphorical sense totally different from that in which the word was originally and is normally used. If hysteria and insanity are the natural results of disordered minds, there is no place remaining in them for possession by devils.

After presenting this piece of 'reasoning' with great conviction, he says that the ascription of such events 'to supernatural beings is merely due to man's ignorance combined with his passion for some sort of explanation.' He then sums up with: 'If events are due to natural causes, they are not due to supernatural causes' (pp. 18-19).

There is a serious weakness inherent in such arguments of the anti-religionists, which can be best understood through illustrations. Think of the railway engine speeding along the track. How do its wheels revolve? If we attempt to answer this

question by studying the different parts of the engine and their movements, we shall arrive at the conclusion that the movement of the wheels is an extension of the functioning of the locomotive's mechanism. But would we be justified in believing that the *reason* for their movement is the engine and its various parts? Obviously, we would not. We should first have to consider the respective roles of the engineer who designed the engine and the engine driver who set it in motion. Without their instrumentality, the engine could neither exist, nor move. The engine and its parts are not then the final reality. The final reality is the *mind,* which has brought the engine into existence, and runs it at will. A Christian scholar, Cecil Boyce Hamann, has aptly said: "Nature does not explain, she is herself in need of explanation." This is because, as he puts it, nature is a fact, not an explanation.

Let us consider, for example, how a chick comes into this world. In embryo, it develops inside the smooth, hard shell of an egg, then it emerges when the shell breaks up. How does it come about that the shell breaks up at the right moment and the fledgling, which is no more than a small lump of

flesh, finds its way into the outer world? In the past, the obvious answer was: “It is the hand of God.” But now, microscopic studies have shown that on the completion of twenty-one days, when the chick is ready to emerge, there appears on its beak a small, hard horn with which this ‘lump of flesh’ is able to break through the walls of its cell. The horn, having done its job, falls off a few days later. This observation, from the point of view of the anti-religionists, contradicts the old concept that it is God who brings the chick out of the shell, because the microscope has clearly shown that a 21-day law exists which is responsible for creating conditions, which make it possible for the chick to emerge from the shell. This is a mere fallacy. What modern observation has done is to add a few more links to the chain of factors, which lead up to an event. It does not tell us the real cause of the occurrence. It has just shifted the problem of the breaking up of the shell to the development of the horn. The breaking of the shell by the chick is simply an intermediate stage in the occurrence rather than its cause. Will the cause of the event be understood only when we learn what made the horn appear on the chick’s beak? In other words, when we have

traced the event back to its primary cause, the cause which ‘knew’ that the chick required some hard instrument to break through the shell and, therefore, in exactly twenty-one days, compelled a hard substance to appear on the beak in the form of a horn and to fall off after having discharged its function?

‘How does the shell break?’ was the question that faced man previously. Now, in the light of recent observations, instead of an answer, we have another question: ‘How does the horn develop?’ In the context of perceived phenomena, there is no difference in the nature of these two questions. At the most, questions of the type that lead us from one link to another in the chain of cause and effect demand an extension of the observation of facts, if they are to be answered at all. On this basis, they do not elicit any valid explanation.

The discoveries held by the atheists to be an explanation of nature and, as such, an alternative to God, can just as easily be thought of as being the way nature works. We can, quite rationally, say that God implements his will through these laws, only

parts of which man, with his limited skills, has been able to discover. Let us suppose that religious minded people, who believe that it is God who causes the ebb and flow of the tides, are confronted with the scientific explanation that the tides are actually caused by the gravitational pull of the moon and vary according to the geographical configuration of the seas and land surfaces. There would be no need for them to deny this explanation in order to uphold their belief in God's instrumentality. They could accept it without causing the slightest harm to their religious beliefs. It is true that tides do occur in consonance with geographical configuration and as a result of gravitational pull. But, after all, what are these things? They too are God's creations. It is through these phenomena that God acts. As John Wilson observed: 'This does not destroy my belief. It is still God (working through these things) who is responsible for the tides.'[1]

Similarly, in the field of biology, the theory of evolution implies that biological processes no longer demand the existence of metaphysical realities. In other words, in order to understand the

nature of life, we do not need to believe in a conscious God, modern studies having 'proved' that life automatically patterns itself along certain material lines: reproduction, variation and selective survival. That is, through reproduction, living creatures continue to be born, certain congenital variations go on developing, then after a long and complicated process of mutation, an altogether new species comes into being. Thus, according to the antagonists of religion, the application of Darwin's principle of natural selection in biology has made it not only possible but imperative to reject outright the concept of God's hand in life's development.

The supposition that the various species of living creatures have come into being through a gradual process of evolution has yet to be established as a fact, but even were we to give credence to this theory, it could still be said with equal conviction, that this is God's chosen way of creation, rather than its being the result of a blind, automatic force. Mechanical evolution can easily be proved to be a creational evolution. This being so, those anti-religionists who refer to science for support have no genuine basis on which to reject this argument of creational evolution.

This is far from being all that there is to the matter. The truth is that twentieth century science has lost its ability to convince. Today, Newton has been replaced by Einstein, and the theories of Planck and Heisenberg have overthrown those of Laplace. Now the anti-religionists, at least on an academic level, can no longer claim that science has arrived at the ultimate truth. Indeed, the theory of relativity and the quantum theory have led scientists to the conclusion that it is impossible in science to separate the observer from the observed. This means that we can see only certain external manifestations of reality; we cannot apprehend it in its essence. The revolution that has occurred in science in the twentieth century has itself proved the importance of religion from the scientific point of view.

In his book, The *Limitations of Science,* J.N. Sullivan states the case thus:

> What is called the modern "revolution" in science consists in the fact that the Newtonian outlook, which dominated the scientific world for nearly two hundred years, has been found

insufficient. It is in process of being replaced by a different outlook, and, although the reconstruction is by no means complete, it is already apparent that the philosophical implications of the new outlook are very different from those of the old one. We are no longer taught that the scientific method of approach is the only valid method of acquiring knowledge about reality. Eminent men of science are insisting, with what seems a strange enthusiasm, on the fact that *science gives us but a partial knowledge of reality.*

This change in the scientific outlook seems to have taken place suddenly. It is not yet sixty years since Tyndall, in his Belfast Address, claimed that science alone was competent to deal with all man's major problems. But, in truth, so far as these remarks sprang from the conviction that the sole reality is 'matter and motion,' their foundations had already been undermined. The attempt to represent nature in terms of matter and motion was already breaking down. That attempt was at its most triumphant by the end of the eighteenth

century, when Laplace was emboldened to affirm that a sufficiently great mathematician, given the distribution of the particles in the primitive nebula, could predict the whole future history of the world. The fundamental concepts isolated by Newton had proved themselves so adequate in the applications that had been made of them that they were regarded as the key to everything.

The first indication that the Newtonian concepts were not all-sufficient came when men tried to fashion a mechanical theory of light. This endeavour led to the creation of the ether, the most unsatisfactory and wasteful product of human ingenuity that science has to show. For generations this monster was elaborated. Miracles of mathematical ingenuity were performed in the attempt to account for the properties of light in terms of the Newtonian concepts. The difficulties became ever more heartbreaking until, after the publication of Maxwell's demonstration that light is an electromagnetic phenomenon, they seemed to become insuperable. For it had

dawned on men of science that there was, after all, nothing sacrosanct about the Newtonian entities. After a certain amount of hesitation, and a few last desperate efforts to make electricity mechanical, electricity was added to the list of irreducible elements.

This may seem to have been a simple step to take, but it was, in reality, of profound significance. For the Newtonian concepts were all of a kind that one seemed to understand intimately. Thus the mass of a body was the quantity of matter in it. Force was a notion derived from our experience of muscular effort. Nevertheless, we supposed that we knew the nature of what we were talking about. But in the case of electricity its nature is precisely what we did not know. Attempts to represent it in familiar terms — as a condition of strain in the ether, or what not — had been given up. All that we knew about electricity was the way it affected our measuring instruments. The precise description of this behaviour gave us the mathematical specification of electricity and

this, in truth, was all we knew about it. It is only now, in retrospect, that we can see how very significant a step this was. An entity had been admitted into physics of which we knew nothing but its mathematical structure.

Since then other entities have been admitted on the same terms, and it is found that they play precisely the same role in the formation of scientific theories as do the old entities. It has become evident that, so far as the science of physics is concerned, we do not require to know the nature of the entities we discuss, but only their mathematical structure. And, in truth, that is all we do know. It is now realized that this is all the scientific knowledge we have even of the familiar Newtonian entities. Our persuasion that we knew them in some exceptionally intimate manner was an illusion.

With this realization it is no long step to Eddington's position that a knowledge of mathematical structure is the only knowledge that the science of physics can give us.

Leaving out all aesthetic, ethical, or spiritual aspects of our environment, we are faced with qualities such as massiveness, substantiality, extension, duration, which are supposed to belong to the domain of physics. In a sense they do belong; but physics is not in a position to handle them directly. The essence of their nature is inscrutable; we may use mental pictures to aid calculations, but no image in the mind can be a replica of that which is not in the mind. And so in its actual procedure physics studies not these inscrutable qualities, but pointer-readings which we can observe. The readings, it is true, reflect the fluctuations of the world-qualities; but our exact knowledge is of the readings, not of the qualities. The former have as much resemblance to the latter as a telephone number has to a subscriber.

The fact that science is confined to a knowledge of structure is obviously of great "humanistic" importance. For it means that the problem of the nature of reality is not prejudged. We are no longer required to

> believe that our response to beauty, or the mystic's sense of communion with God, have no objective counterpart. It is perfectly possible that they are, what they have so often been taken to be, clues to the nature of reality. Thus our various experiences are put on a more equal footing, as it were. Our religious aspirations, our perceptions of beauty, may not be the essentially illusory phenomena they were supposed to be. In this new scientific universe even mystics have a right to exist (pp. 138-42).

Such explanations from scientific philosophers now abound. Morton White in his book *The Age of Analysis,* points out that 'the philosophically-minded scientists of the 20th century have started a new crusade, the names of Whitehead, Eddington and James Jeans are the most prominent among them.' He then bears out this notion of a 'crusade' with highly pertinent quotations from each of them.

'Nature is alive' (p. 84). Such was the interpretation of modern information by the English

mathematician and philosopher, A.N. Whitehead (1861-1947).

‘The stuff of the world is mind stuff (p. 134). So said the English astronomer, Sir Arthur Eddington (1882-1944), deriving this conclusion from his studies in science.

The English mathematical physicist, Sir James Jeans (1877-1946), interprets modern research thus: ‘The universe is a universe of thought’ (p. 134).

The views of the most perceptive scientists can be summed up in J.W.N. Sullivan’s words: ‘The ultimate nature of the universe is mental’ (p. 145).

The thoughts of these scholars clearly negate any material interpretation of the universe, their special virtue being that they have been advanced in the context of modern findings in the field of physics and mathematics. That the proponents of such ideas have had to make courageous, herculean efforts to overcome the materialistic outlook is aptly expressed by Morton White with reference to Whitehead: ‘He is a heroic thinker who tries to beard the lions of Intellectualism, Materialism and

Positivism in their own bristling den' (p. 84). Morton White may have said this only about Whitehead, but this applies to all the scientists mentioned above.

This philosophical question as to the final reality being mind or matter is actually concerned with the question of whether the universe has developed independently and spontaneously through some material process, or whether there is a non-material being who has created it at will. If we accepted the former proposition, it would be just like saying that, in the last analysis, a machine is simply a fortuitous compound of iron and petrol. That is to say, that the machine started off as iron and petrol, but owing to some blind, automatic process, it took on the form of a machine. All a pure accident! A machine, as we all know, is the product of an engineer's mind. That mind, quite distinct from the matter, existed before the machine. It conceived it, designed it, and brought it into being. The machine's existence was clearly consequent upon the exercise of mind and will.

In determining the nature of the mind, differences can be found among those who believe the mind to

be the final reality, just as believers in God have diverse concepts of God. Even so, the conclusion arrived at by academic study that the final underlying reality of the universe is mind, testifies by its very nature to the truth of religion and amounts to a rejection of atheism. 'The truly significant change in modern science is not to be found in its increased powers to aid man's progress, but in the change in its metaphysical foundations.'[2]

The best exposition of this viewpoint is to be found in *The Mysterious Universe,* by Sir James Jeans. By pure scientific argument, the writer has come to the conclusion that in the light of modern physics, 'The universe cannot admit of material representation, and the reason, I think, is that it has become a mere mental concept.'

He later goes on to say, "if the universe is a universe of thought, then its creation must have been an act of thought" (pp. 133-134).

He holds that the modern concept, which interprets matter in terms of waves of electrons, is quite unconceivable to human thought, because these 'waves' could be only the 'waves of probabilities'

without having any material existence. Such reasons have compelled Jeans to conclude that the substance of the universe is thought, not matter. Now where is this thought situated? His answer is that it exists in the mind of a great 'mathematical thinker'? Because the structure of this thought that comes to our mind is a completely mathematical structure. The 'great Architect of the Universe thus begins to appear as a pure mathematician,'[3]

Sir James Jeans then states the entire case with great precision:

> It seems at least safe to say that the river of knowledge has made a sharp bend in the last few years. Thirty years ago, we thought, or assumed, that we were heading towards an ultimate reality of a mechanical kind. It seemed to consist of fortuitous jumble of atoms, which was destined to perform meaningless dances for a time under the action of blind purposeless forces, and then fall back to form a dead world. Into this wholly mechanical world, through the play of the same blind forces, life had stumbled by

accident. One tiny corner at least, and possibly several tiny corners of this universe of atoms had chanced to become conscious for a time, but was destined in the end, still under the action of blind mechanical forces, to be frozen out and again leave a lifeless world.

Today there is a wide measure of agreement, which on the physical side of science approaches almost to unanimity, that the stream of knowledge is heading towards a non-mechanical reality; the universe begins to look more like a great thought than like a great machine. Mind no longer appears as an accidental intruder into the realm of matter; we are beginning to suspect that we ought rather to hail it as the creator and governor of the realm of matter — not of course our individual minds, but the mind in which the atoms out of which our individual minds have grown exist as thoughts.

The new knowledge compels us to revise our hasty first impressions that we had stumbled into a universe, which either did not concern

> itself with life or was actively hostile to life. The old dualism of mind and matter, which was mainly responsible for the supposed hostility, seems likely to disappear, not through matter becoming in any way more shadowy or insubstantial than heretofore, or through mind becoming resolved into a function of the working of matter, but through substantial matter resolving itself into a creation and manifestation of mind. We discover that the universe shows evidence of a designing or controlling power that has something in common with our own individual minds not, so far as we have discovered, emotion, morality, or aesthetic appreciation, but the tendency to think in the way, which, for want of a better word, we describe as mathematical.[4]

In spite of this complete about-face in science from the academic point of view, it is a fact that, in practice, there have been no noticeable changes in the attitudes of anti-religionists. On the contrary, they are engaged in seeking new arguments to support their theory. The reason for this is not to be

found within any academic framework. No, the reason is to be traced, alas! to a biased mentality. How often have we seen educated people refuse to accept the truth when ample proofs have been offered them, simply because of deeply-rooted preconceived ideas. It was just such a prejudiced attitude, in the seventeenth century, which had prevented Italian scholars from accepting Galileo's theory as an alternative to Aristotle's, although a ball thrown from the Leaning Tower had demonstrated quite conclusively that Galileo was right. Again, it was this bias which caused scholars at the end of the nineteenth century to ridicule Berlin Professor Max Planck when he gave a physical explanation of light,— the quantum theory, — which proved the Newtonian concept wrong. Planck's theory was not accepted for many years, but today it is considered one of the most important principles in physics.

There is a common belief that it is only laymen who are guilty of prejudice and not scientists; we should do well, therefore, to mark the words of A.V. Hills, himself a scientist: 'I should be the last to claim that we, scientific men, are less liable to prejudice than

other educated men.[5]

Sir James Jeans underscores this when he says, 'Our modern minds have, I think, a bias towards mechanical interpretation.'[6]

Now, in a world where prejudice holds sway, how can we hope that a concept will be accepted only because it has been proved academically? The often-repeated experiences of history show that man has all along been governed by his emotions rather than by his intellect, in spite of the fact that academically and logically, reason occupies the higher position. More often than not, reason has played into the hands of emotion. It has seldom happened that it has gained a positive control over the emotions. Indeed, the intellect has always coined arguments to support the emotional and thus tried to prove that emotional attitudes were rational. Man finds it a psychological necessity to cling to his emotional being, even at the cost of remaining blind to reality. We must remember, therefore, that we are not dealing with machines, which ought to respond to the mere flicking of a switch. What we have to address ourselves to is

man, and man accepts something only when he himself is willing to do so. If he is not, no argument, however sound it may be, will convince him. Arguments are not, sad to say, electric switches. That man, with all his capacity for reasoning, should so seldom, himself, be amenable to reasoning, is perhaps the greatest tragedy of human history.

1. John Wilson, *Philosophy and Religion,* London, 1861, p. 36.
2. J.W.N. Sullivan, *the Limitations of Science,* pp. 138-50.
3. *The Mysterious Universe,* p. 122.
4. *Ibid*.. pp. 136-38.
5. Quoted by A.N. Gilke in *Faith for the Modern Man.* p.l09.
6. *The Mysterious Universe,* p. 135.

6. THE MAN SCIENCE FAILED TO DISCOVER

Modern scholars have come to the conclusion that we may have succeeded in making great discoveries about inanimate matter, but that we cannot be certain of having been successful in discovering the facts of man's nature and existence, for there exists a strange disparity between the sciences of inanimate matter and those of life. The sciences which concern themselves with the inanimate part of our world differ from the biological sciences in that the former are subject to definite laws whereas the latter are, to quote Dr. Alexis Carrel, inextricably lost 'in the midst of a magic forest whose countless trees unceasingly change their place and shape.' Unlike material phenomena, biological phenomena cannot be defined in terms of algebraic equations. The sciences of the material world are confined to description, a lower form of science altogether, because they do not unveil the ultimate nature of things, but only convey certain qualities such as weight and spatial dimensions. They do give us the

power to predict future events, and often to determine at will their occurrence; in learning the secret of the constitution and properties of matter, we have gained the mastery of almost everything which exists on the surface of the earth excepting ourselves. The science of living beings in general, and of the human individual in particular, has not made such spectacular progress. It still remains at the descriptive stage, while the elucidation of the real nature of living beings requires much more than mere description.

The Nobel Prize winner, Dr. Alexis Carrel, who achieved unique fame in biological research at the Rockfeller Institute in New York, elaborates at some length in his book, *Man, the Unknown,* on what is meant by man:

> Man is an indivisible whole of extreme complexity. No simple representation of him can be obtained. There is no method capable of apprehending him simultaneously in his entirety, his parts, and his relations with the outer world. In order to analyze ourselves we are obliged to seek the help of various

techniques and, therefore, to utilize several sciences. Naturally, all these sciences arrive at a different conception of their common object. They abstract only from man what is attainable by their special methods. And those abstractions, after they have been added together, are still less rich than the concrete fact. They leave behind them a residue too important to be neglected. Anatomy, chemistry, physiology, psychology, pedagogy, history, sociology, political economy do not exhaust their subject. Man, as known to the specialists, is far from being the concrete man, the real man. He is nothing but a schema, consisting of other schemata built up by the techniques of each science.

He is, at the same time, the corpse dissected by the anatomists, the consciousness observed by the psychologists and the great teachers of the spiritual life, and the personality which introspection shows to everyone as lying in the depth of himself. He is the chemical substances constituting the tissues and humours of the body. He is the amazing

community of cells and nutrient fluids whose organic laws are studied by the physiologists. He is the compound of tissues and consciousness that hygienists and educators endeavour to lead to its optimum development while it extends into time. He is the homoa-conomicus who must ceaselessly consume manufactured products in order that the machines, of which he is made a slave, may be kept at work. But he is also the poet, the hero, and the saint. He is not only the prodigiously complex being analyzed by our scientific techniques, but also the tendencies, the conjectures, the aspirations of humanity. Our conceptions of him are imbued with metaphysics. They are founded on so many and such imprecise data that the temptation is great to choose among them those, which please us. Therefore, our idea of man varies according to our feelings and our beliefs. A materialist and a spiritualist accept the same definition of a crystal of sodium chloride; but they do not agree with one another upon that of the human being. A mechanistic physiologist and a vitalistic physiologist do

not consider the organism in the same light. The living being of Jacques Loeb differs profoundly from that of Hans Driesch. Indeed, mankind has made a gigantic, effort to know itself. Although we possess the treasure of the observations accumulated by the scientists, the philosophers, the poets, and the great mystics of all times, we have grasped only certain aspects of ourselves. We do not apprehend man as a whole. We know him as composed of distinct parts. And even these parts are created by our methods. Each one of us is made up of a procession of phantoms, in the midst of which strides an unknowable reality.

In fact our ignorance is profound. Most of the questions put to themselves by those who study human beings remain without answer. Immense regions of our inner world are still unknown. How do the molecules of chemical substance associate in order to form the complex and temporary organs of the cell? How do the genes contained in the nucleus of a fertilized ovum determine the characteristics

of the individual deriving from that ovum? How do cells organize themselves by their own efforts into societies, such as the tissues and the organs? Like the ants and the bees, they have advance knowledge of the part they are destined to play in the life of the community. And hidden mechanisms enable them to build up an organism both complex and simple. What is the nature of our duration, of psychological time, and of physiological time? We know that we are a compound of tissues, organs, fluids, and consciousness. But the relations between consciousness and cerebrum are still a mystery. We lack almost entirely a knowledge of the physiology of nervous cells. To what extent does will power modify the organism? How is the mind influenced by the state of the organs? In what manner can the organic and mental characteristics, which each individual inherits, be changed by the mode of life, the chemical substances contained in food, the climate, and the physiological and moral disciplines?

We are very far from knowing what relations exist between skeleton, muscles, and organs, and mental and spiritual activities. We are ignorant of the factors that bring about nervous equilibrium and resistance to fatigue and to diseases. We do not know how moral sense, judgement, and audacity could be augmented. What is the relative importance of intellectual, moral, and mystical activities? What is the significance of aesthetic and religious sense? What form of energy is responsible for telepathic communications? Without any doubt, certain physiological and mental factors determine happiness or misery, success or failure. But we do not know what they are. We cannot artificially give to any individual the aptitude for happiness. As yet we do not know what environment is the most favourable for the optimum development of civilized man. Is it possible to suppress struggle, effort, and suffering from our physiological and spiritual formation? How can we prevent the degeneracy of man in modern civilization? Many other questions could be asked on subjects, which are to us of

> the utmost interest. They would also remain unanswered. It is quite evident that the accomplishments of all the sciences having man as an object remain insufficient, and that our knowledge of ourselves is still most rudimentary.[1]

This passage more than adequately demonstrates that we still have not formulated a true science of man. About the material part of human existence we are fairly well informed, but we are completely ignorant of who or what controls it. Life is still a mystery to us, and until it is unveiled, there can be no proper apprehension of what, *in essence,* it is. Alexis Carrel's book, *Man, the Unknown,* is an attempt to make scientific approach to its discovery.

Today man can split an atom; he can make icy lands habitable; he has walked on the moon and sent probes into outer space. Such instances of advanced technological progress give the impression that if man can learn so much about his material environment that he is able to exploit it at will, he should certainly be able to discover *himself* and in the process, set right whatever ails him. But there

are strong indications in our known world that man can never be understood in the same way that matter can.

Let us look at this entity, called man, on a purely physiological basis. He is composed of millions and millions of cells of protoplasm. And what is protoplasm? We can say with certainty that it is a viscous, translucent, homogeneous, structureless substance endowed with contractility and a chemical composition allied to that of albumen: it is the physical basis of life and, clearly, we know a great deal about it as such. Yet we have to concede that we do not know *why* it should have this unique property of life, or *how* this came to be so. Moreover, it is a fact that the methods we employ to study the material world cannot be applied to protoplasm in any way which should elicit an answer to these awesome questions. All that is visible to us is a compound of certain things.

If we had the means and the resources, we should be able not only to destroy but also to create such compounds. Indeed, science has discovered the elements of which protoplasm is composed and the

particular proportion of those elements have also been learnt. But it is in vain that we join together the two distinct forms of protoplasm, the nucleus and the cytoplasm, albeit in the correct proportions, for no protoplasm is thus formed which has the property of life. While other chemical compounds can be formed by combining their elements in the correct proportions, (e.g. one molecule of water is made up of one atom of oxygen and two atoms of hydrogen) the life-giving matter which is the main constituent of a human being's body can in no way be brought into existence by human agency. Our powers of creation extend only to inanimate matter, never to living entities.

This is the area in which we are the most helpless, and we have no option but to admit it. The greatest irony is that although all our physiological studies are concerned with the living man, the results they yield bear more relevance to this cadaver. Science has discovered both the elements which constitute protoplasm and their correct proportions, yet the particular order or arrangement which is responsible for the life-property of protoplasm has still to be revealed. The moment this arrangement

disintegrates, the protoplasm is rendered lifeless. It is as if a particular arrangement were responsible for the existence of soul in the protoplasm. But the difficulty that confronts us is that so long as we keep this arrangement intact, the protoplasm cannot be chemically analysed. The moment we break it, life vanishes. Whenever protoplasm is subjected to chemical analysis, the soul has already left it. And this will always be the case. Science will always remain in the dark regarding the reality of life. But this is not the end of our problem. It goes much deeper than this.

Let us suppose someone sets out to unveil reality, thus disclosing to man the law of life, and, to this end, he begins the study of human settlements. After prolonged examination of different societies, he comes to the conclusion that, since society is composed of human beings, he had best concern himself with the individual, the better to understand the group. So he reduces his focus accordingly. His first preoccupation then is with psychology. But he soon realizes that no single philosophy emerges, because there are several schools of thought on the subject, all arriving at

different conclusions. One school claims that the senses are central to all human actions while others say that all man's responses are reactions to impressions received consciously or unconsciously from the external world. Yet others say that it is sexual desires which provides the stimulus for all of man's actions. A different type of study shows that an unrecognized urge to realize a certain set of ideals keeps man active. Some schools of thought take consciousness to be a reality and explain the whole of man's being in relation to this; others hold that the mind and intellect have no existence, and that there is no central power commanding the various parts of the body. Rather the parts which receive most attention are better developed and that is what makes it possible, for example, for one man to be highly skilled in dancing, another in archery and yet another in profound reflection. These differences in thinking in the field of psychology go to such extremes that one might be led to wonder if there were any such unified science as psychology.

On seeing this jungle of ideas, our inquirer thinks of studying another aspect of human existence - biology - in order to come to more cogent

conclusions. But in this discipline he finds that man is treated as an amalgam of the metabolism, the respiratory system, the blood circulation and so on. These systems are based on certain chemical changes and, judging from their action and reaction, it would appear that the different parts of the whole bodily system are sub-functions of the metabolism.

After deep reflection, he comes to the conclusion that since the existence of the human body and its development are related to chemical actions and reactions, the principles according to which chemical changes take place should first of all be properly understood, failing which no really satisfactory information about man could ever be discovered. So he engrosses himself in the study of physics and chemistry and, indeed, devotes the major part of his life to it. This branch of study leads him on to an investigation of the molecule and the atom, from which he proceeds to study the electrons and protons of which the atom is composed. The realization then comes to him that the whole universe is nothing but electric waves, and he becomes immersed in the study of the latest discoveries in nuclear science. He thus collects a

huge mass of facts, but at the end of it all, he fails to arrive at any firm conclusions about the reality of man. He has become lost in a world, which, in spite of being visible, has remained impenetrable. According to Dr. C.E.M. load, matter is something unreal, which cannot be grasped. It is a part of the four dimensional space-time continuum, a network of electric waves, or a 'wave of probability which perished on being looked at; and it has even been considered an extension of the observer's consciousness instead of something solid and tangible.

This pathetic end to the quest for the secret of life in the material sciences shows that the secret of life is not discoverable by man. Now just as a sick man cannot treat his disease himself and is forced to consult a doctor, so a man who is in need of spiritual sustenance cannot provide this for himself without turning to God. The fact that he cannot discover the secret either of life or of his own nature is a sure indicator that he is in need of the God who created him in the form in which he exists. Just as God has created man in such a way that he needs oxygen and then has given him oxygen in

abundance, He has made him yearn to know the secret of life and then has sent His messengers to him so that all veils should fall from reality.

1. *Man* The *Unknown,* pp. 16-19.

7. THE ‘RELIGION’ OF THE MODERN AGE

INTRODUCTION

“Complete scepticism,” observes Julian Huxley, “is not practicable. Religion of some sort is probably necessary.”

But by his lights the religion of the modern age will be a godless one, without revelation. The absurdity of this contradiction in terms is patent, yet, as a concept, it is backed by a long-standing philosophy which has not failed to have its influence on the modern mind, so that not only anti-religionists, but also many religionists—whatever other differences of opinion they may have—subscribe currently to the view that guidance through revelation is an impossibility. They prefer to believe in human discovery in this realm as in all other sciences. “The next great task of science,” said Lord Morley, “is to create a religion for mankind.”[1]

Of the ‘humanist’ group, even those who pay lip-service to religion, do not use the latter word with

the traditional connotation of an appreciation of reality through divine revelation. They tend to treat it as just another intellectual art, in which there has been a transfer of the seat of power from God to man. That is why this modern 'religion' is termed humanism.

Dr. Alexis Carrel, (1873-1944) a French surgeon and physiologist, who won a Nobel Prize in 1912, attempted in his book, *Man, the Unknown*, first published in 1935, to elucidate this standpoint. Although this work cannot be said to be representative of the majority of these thinkers, it is probably the most exhaustive book on this topic written by a scientist using a purely scientific method and giving a detailed analysis of the facts hitherto discovered.

In spite of the progress of science and technology, man is still beset by the problems of not having been able to bring either himself or his environment to a state of perfection. Nor is his ultimate understanding of these matters in any sense complete. The ensuing difficulties are the constant preoccupation of thinking men of the modern

world. Adherents of religion think that this results from the neglect and consequent downfall of religion, while atheists and apostates take quite a different view. The latter attribute our difficulties to the fact that the progress of those sciences which deal with inanimate matter has not been equalled by that of the biological sciences, — which are still, indeed, at a rudimentary stage. They feel that we are inevitably suffering because of their failure to move forward. Dr. Carrel, therefore, advocates far more intensive research in this field.

His book *Man, the Unknown,* is an attempt to discover this 'man' who is still 'unknown'. He begins the chapter: 'The Remaking of Man' with these words: "Science which has transformed the material world, gives man the power of transforming himself" (p. 252). He goes on, "For the first time in history, humanity, helped by science, has become master of its destiny. It has unveiled some of the secret mechanisms of his life. It has shown him how to alter his emotion, how to mould his body and his soul on patterns born of his wishes. But will we be capable of using this knowledge of ourselves to our real advantage? We

know that intellectual apathy, immorality, and criminality are not, in general, hereditary. The evil is not irreparable" (pp. 252-3).

Later he states that technology has constructed man, not according to the spirit of science, but according to erroneous metaphysical conceptions ... we should break down the fences, which have been erected between the properties of concrete objects, and between the different aspects of ourselves. The error responsible for our sufferings comes from a wrong interpretation of a genial idea of Galileo. Galileo, as is well known, distinguished the primary qualities of things, dimensions and weight, which are easily measurable, from their secondary qualities, form, colour, odour which cannot be measured. The quantitative was separated from the qualitative. This mistake had momentous consequences. In man, the things, which are not measurable, are more important than those, which are measurable. The existence of thought is as fundamental as, for instance, the physico-chemical equilibria of blood serum.

The separation of the qualitative from the

quantitative grew still wider when Descartes created the dualism of the body and the soul. Then the manifestations of the mind became inexplicable. The material was definitely isolated from the spiritual. Organic structures and physiological mechanisms assumed a far greater reality than thought, pleasure, sorrow, and beauty. This error switched civilization to the road, which led science to triumph and man to degradation.

In order to find again the right direction we must return in thought to the men of the Renaissance. We should reject the dualism of Descartes. Mind will be replaced in matter. The soul will no longer be distinct from the body. As much importance should be given to feelings as to thermodynamics.

It will be difficult to get rid of a doctrine which, during more than three hundred years, has dominated the intelligence of the civilized. If scientific civilization should leave the road that it has followed since the Renaissance, strange events would

> immediately take place. Matter would lose its supremacy. Mental activities would become as important as physiological ones. The study of moral, aesthetic, and religious functions, would appear as indispensable as that of mathematics, physics, and chemistry. Hygienists would be asked why they concern themselves exclusively with the prevention of organic diseases, and not with that of mental and nervous disturbances, why they pay no attention to spiritual health — Pathologists would be induced to study the lesions of the humours as well as those of the organs, to take into account the influence of the mental upon the tissues, and vice versa (p. 256).

Thus, according to Dr. Carrel's diagnosis, the causes of human suffering stem from the fact that the sciences of inanimate matter have become far more developed than the science of man, which is still in a rudimentary state. He sees this as one of the greatest catastrophes ever suffered by humanity. If black, malodorous charcoal can be converted into lovely colour, and ungainly lumps of iron into shapely, moving machines, man and his society can

also by the help of science become a burgeoning orchard. I again quote Dr. Carrel:

> We are the victims of the backwardness of the sciences of life over those of matter. The only possible remedy for this evil is a much more profound knowledge of ourselves. Such a knowledge will enable us to understand by what mechanisms modern existence affects our consciousness and our body. We shall thus learn how to adapt ourselves to our surroundings, and how to change them should a revolution become indispensable. In bringing to light our true nature, our potentialities, and the way to actualize them, this science will give us the explanation of our physiological weakening, and of our moral and intellectual diseases. We have no other means of learning inexorable rules of our organic and spiritual activities, of distinguishing the prohibited from the lawful, of realizing that we are not free to modify, according to our fancy, our environment and ourselves. Since the natural conditions of existence have been destroyed by modern

> civilization, the science of man has become the most necessary of all sciences (pp. 38-39).

What is the way to acquire this science?

We learn each year that tremendous progress has been made in eugenics, statistics, ethics, biology, chemistry, anatomy, physiology, medicine, hygiene, sociology, economics and so on. But for all practical purposes, their results are not very important. This may seem very surprising. Indeed, it is, and this is because, as Carrel puts it: "These sciences will be utilizable only if, instead of being buried in libraries, they animate our intelligence."

No one single individual has mastery over all these sciences. It is highly desirable that certain individuals should rise to this task, and, having acquired a profound knowledge of all the subjects, should utilize the science scattered in books in a unified and integrated manner. Dr. Carrel goes on to say:

> But is it possible for a single brain to assimilate such a gigantic amount of knowledge? Can any individual master

anatomy, physiology, biology, chemistry, psychology, metaphysics, pathology, medicine, and also have a thorough acquaintance with genetics, nutrition, development, pedagogy, aesthetics, morals, religion, sociology, and economics? It seems that such an accomplishment is not impossible. In about twenty-five years of uninterrupted study one could learn these sciences. At the age of fifty, those who have submitted themselves to this discipline could effectively direct the construction of the human being and of a civilization based on his true nature.

The making of man requires the development of Institutions wherein body and mind can be formed according to natural laws. The already existing organizations have to undergo important changes in order to become fitted for the work of human renovation. They must, for instance, eliminate the remnants of the narrow mechanisticism of the last century, and understand the imperativeness of a clarification of the concepts used in biology, of

a reintegration of the parts into the whole, and of the formation of true scholars, as well as of scientific workers. The direction of the institutions of learning, and of those which apply to man the results of the special sciences, from biological chemistry to political economy, should not be given to specialists, because specialists are exaggeratedly interested in the progress of their own particular studies, but to individuals capable of embracing all sciences. The specialists must be only the tools of a synthetic mind. They will be utilized by him in the same way as the professor of medicine of a great university utilizes the services of pathologists, bacteriologists, physiologists, chemists, and physicists in the laboratories of his clinic. None of these scientists is ever given the direction of the treatment of the patients. An economist, an endocrinologist, a social worker, a psychoanalyst, a biological chemist, are equally ignorant of man. They cannot be trusted beyond the limits of their own field.

Scores of such institutions have already

devoted their activities to worthwhile tasks in different fields, but their researches are not equal to the task in hand. Mathematics, physics, and chemistry are indispensable but not basic sciences in the researches concerning living organisms. They are not capable of constructing the concepts specific to the human being. The biological workers of tomorrow must realize that their goal is the living organism and not merely artificially isolated systems or models: that general physiology, as considered by Bayliss, is a very small part of physiology.

We know that the evolution of humanity is very slow, that the study of its problems demands the lifetime of several generations of scientists. We need, therefore, an institution capable of providing for the uninterrupted pursuit for at least a century of the investigations concerning man. Modern society should be given an intellectual focus, an immortal brain, capable of conceiving and planning its future (pp. 261-67).

These dicta of Carrel sum up the thoughts of those who, after forsaking religion based on God, want to develop a religion made by man. In making a review of human knowledge, Carrel has pointed out how many unknown corners there are of human life. He rounds off his 300-page book with these words:

> For the first time in the history of humanity, a crumbling civilization is capable of discerning the causes of its decay. For the first time it has at its disposal the gigantic strength of science. Will we utilize this knowledge and this power? It is our only hope of escaping the fate common to all great civilizations of the past. Our destiny is in our hands. On the new road, we must now go forward (p. 293).

REVIEW

The above contentions may appear to be attractive propositions from the philosophical point of view, yet the thinking behind them is basically flawed.

1. We must first consider that there is a fundamental difference between the material and

human sciences such as makes it impossible for man to penetrate to the depths of himself as successfully as he can analyse the physical properties of matter. Nor is it true to say that insufficient work has been done on the human sciences for this to be possible. In actual fact, research on, and perusal of the latter can be traced much further back in time than those of the material sciences. Even so, efforts in these fields have met with only partial success. As Dr Carrel says, "A materialist and a spiritualist accept the same definition of a crystal of sodium chloride; but they do not agree with one another upon that of the human being" (p. 17).

No research to date gives any indication that this state of affairs is likely to change or improve. On what basis then can man hope to discover the secret of life in future? The writer has criticized those who wish to apply to man information, which actually relates to the material world:

> The second law of thermodynamics, the law of dissipation of free energy, indispensable at the molecular level, is useless at the psychological level, where the principles of

> least effort and of maximum pleasure are applied. The concepts of capillarity and of osmotic tension do not throw any light on problems pertaining to consciousness. It is nothing but word play to explain a psychological phenomenon in terms of cell physiology, or of quantum mechanics (p. 43).

In spite of adopting this stance, he goes on to say that human sciences are discoverable to us, just as material sciences are. This is just repetition in different words of the concept of the mechanistic psychologists of the nineteenth century, because the only valid information that can be acquired on man is of a purely descriptive nature relating to his material aspects. It follows that those who want to understand man by treating him in isolation from religion, will be no different in their final judgement from the 19th century materialists.

2. The writer makes the point that unconnected individuals specializing in their respective fields cannot discover a truly human science. It is rather a single individual with a sound knowledge of all basic sciences who would be successful in this domain.

> Such a synthesis cannot be obtained by a simple, round table conference of the specialists. It requires the efforts of one man, not merely those of a group. A work of art has never been produced by a committee of artists, nor a great discovery made by a committee of scholars. The syntheses needed for the progress of our knowledge of man should be elaborated in a single brain (p. 55).

But to find a man who is truly capable of producing such a synthesis of all knowledge is almost impossible under present circumstances. This is because man suffers the temporal limitations of the normal human life span, the laws governing which are inexorable. No method ever having been discovered to stay the advent of old age and death, the time available for such work is barely sufficient to master one of the scientific fields in its entirety, far less all of the fields which have been explored till today.

The writer has suggested a period of 25 years as being sufficient to master all of the fields that it would be necessary to study. This is, indeed, a

daring idea. But is it feasible? Not, if we are to judge by the many unsuccessful examples of interdisciplinary studies which have been undertaken to date. Even the study of a single subject can swallow up a whole lifetime. Marx, for example, had wanted to study only economics and he devoted 35 years of his life to this subject. Even so, his study of it was incomplete, and he was ultimately able to write only one volume of his proposed book, *Capital.*

This is far from being all that there is to the matter. The reality of man is so complex, such a mixture of opposites that, in the words of a philosopher, the only definite thing we can say about it in the light of present knowledge is that it is impossible to hold an indisputable and consistent opinion on man. It would follow that only those with insufficient knowledge could feel confident about entertaining certain convictions about man, which the writer has dismissed as 'illusive confidence' (p. 231).

With the increase in knowledge, such contradiction and disparate questions appear before one that it becomes impossible to strike a balance or find any

compatibility between them, far less reach any final conclusion about them. For confirmation of this, we need only see how the opinions of specialists in various fields differ quite drastically from one another. For instance, Watson and the Behaviorists proclaim that education and environment are capable of giving human beings any desired form. To their way of thinking, education would be all, and heredity of negligible importance. Geneticists, on the contrary, hold that heredity pursues man like the furies of antiquity and that the salvation of the human race lies, not in education, but in eugenics. This being so, it is hardly to be supposed that such men exist as will adequately cover a broad spectrum of the human science without becoming a prey to the same disparities and dislocation as have plagued the various specialists.

3. The writer has ignored the fact that man is a creature with a will. This places a wide and insurmountable gulf between him and all material objects. Of material things, we are confident of knowing the truth, because we are sure that with all matter of a similar kind, identical results will be ensured in every similar experiment (e.g. water will

always boil at 100°C at standard atmospheric pressure). But man is a different matter altogether. Any human being, provided he has the will, can change himself at any point in time. In the words of Dr. Carrel:

> There is a strange disparity between the sciences of inert matter and those of life. Astronomy, mechanics, and physics are based on concepts, which can be expressed, tersely and elegantly, in mathematical language. Such is not the position of biological sciences. Those who investigate the phenomenon of life are as if lost in an extricable jungle, in the midst of a magic forest, whose countless trees unceasingly change their place and their shape. They are crushed under a mass of facts, which they can describe but are incapable of defining in algebraic equations (p. 15).

Hence the impossibility of constructing a rigidly scientific matrix which would provide the groundwork for the elucidation of our purely human problems. The greatest factor in solving such problems is the control of the human will.

When man does not, of his own volition adhere to the highest code of conduct, there is no scientific law whose application can cause him to mend his ways. Entire electrical installations spring to life by the mere throwing of a switch at the powerhouse, but no such system exists whereby the actions of men can be so directed. Man can act, or refrain from action, only by willing himself to do so, a process in which external intervention would normally play little or no part.

4. This point of view supposes that immorality, dishonesty and criminal tendencies are kinds of mental and nervous "diseases" which can be "cured" like colds and fevers. He writes:

> Moral sense, like intellectual activity, apparently depends on certain structural and functional states of the body. These states result from the immanent constitution of our tissues and our minds, and also from factors, which have acted upon us during our development. In his essay on the foundation of Ethics, presented at the Royal Society of Sciences of Copenhagen, Schopenhauer

> expressed the opinion that the moral principle has its basis in our nature. In other terms, human beings possess innate tendencies to selfishness, meanness, or pity (p. 125).

This supposition is also absurd. Although there are certain causes for the tendencies to commit crimes, they are purely peripheral, and their real reason is man's own decision to launch himself on this course. Without control over decision-making, the criminal mentality will never be eradicated. For this reason it is futile to expect that moral offenders and criminals may be cured of their deficiencies in hospitals, just as other patients are treated for physical diseases. Crime is an act of will, whereas diseases are a material happening. Our surgeons can perform surgery upon matter, but they cannot operate upon the human will. They cannot, therefore, control it.

The writer himself is forced to admit that the complexity of life's issues will always place a true science of man beyond the reach of humanity. This avowal notwithstanding, he hopes (we think, in vain) that man will be able to attain to this. He says:

> In short, the slow progress of the knowledge of the human being, as compared with the splendid ascension of physics, astronomy, chemistry, and mechanics, is due to our ancestors’ lack of leisure, to the complexity of the subject, and to the structure of our mind. Those obstacles are fundamental. There is no hope of eliminating them. They will always have to be overcome at the cost of strenuous effort. The knowledge of ourselves will never attain the elegant simplicity, the abstractness, and the beauty of physics. The factors that have retarded its development are not likely to vanish. We must realize clearly that the science of man is the most difficult of all sciences (pp. 22-23).

All thinkers admit this fact regarding the human sciences. Julian Huxley writes:

> However — and this is vital — the fading of God does not mean the end of religion. God’s disappearance is in the strictest sense of the word a theological process: and while theologies change, the religious impulses

> which gave them birth persist. The disappearance of God means a recasting of religion, and a recasting of a fundamental sort. It means the shouldering by man of ultimate responsibilities which he had previously pushed off on to God.
>
> What are these responsibilities which man must now assume?
>
> First, responsibility for carrying on in face of the world's mystery and his own ignorance. In previous ages that burden was shifted on to divine inscrutability: "God moves in a mysterious way." — Now we lay it to the account of our own ignorance, and face the possibility that ignorance of ultimates may, through the limitations of our nature, be permanent (p. 133).[2]

It is indeed contradictory that faced with this admission, we still have the lingering hope that, one day, we shall solve the problems of life — when we have mastered the human sciences! It is equally a contradiction that discoveries, which should have alerted man to the necessity of

turning to God, have served only to turn him in the opposite direction.

1. C.A. Coulson, *Science and Christian Belief*, 1955, p. 8.
2. Julian Huxley, *Man* in *the Modern World,* Chatto & Windus, London, 1950.

8. THE ATHEISTIC INTERPRETATION OF RELIGION

Modern thinkers are not willing to admit any such source of knowledge as is established through the intervention of God. Atheism holds the demands of religion that people should believe in something beyond their perception to be not only illogical but indicative of the non-reality of its premises. Were this not so, human access to it would be a possibility. Since religion and its followers have always existed in history—in spite of Auguste Comte's (1798-1851) prediction that with the spread of science they would disappear — atheists are forced to find an explanation for this phenomenon. To be convincing, they have to allude to events, which have certain elements in common with religious happenings, this being more easily understandable by the common man. Poetry, with its resounding metaphors, is one of the richest sources of such parallels, and, having cited them, they proceed to pronounce religion to be nothing more than a kind of neutral mental activity.

According to Toynbee there are two ways of

perceiving the truth. One is the scientific method, which is based on observation and experiment. The other is the poetic method, which springs from within. The first method yields scientific truth and the second poetic truth. He observes: "On the poetic level of the subconscious psyche, the comprehensive vision is prophecy."[1]

In the *Encyclopaedia of Social Sciences,* religion has been likened to art. It puts forward the view that just as certain individuals have a special taste for art, and exercise their extraordinary talent in that field, so certain other individuals have been specially gifted with 'inner eyes and ears' and it is this unique talent which displays itself as the mainstay of religion.[2]

T.R. Miles, in his book, *Religion and the Scientific Outlook,* observes: "If the metaphysical realities of religion are understood literally, they are meaningless. Some meaning could be attached to them if they are understood as the 'language of parable.' To Miles, if revelation is taken to mean the word of God which is revealed to a particular man, that makes no sense. But when it is taken to mean a

'flash of insight, then that is understandable, because "this is a perfectly legitimate use of the word 'revelation' in ordinary speech." We say of a particular discovery that it was an 'absolute revelation'. Any piece of profound insight can likewise be referred to as a 'revelation.' (p.196). Similarly, he says that the concept of life after death is not understandable when it is taken literally, but that we can understand it if it is understood as the language of parable. It is because we know full well that the body disintegrates after death and the soul ends with the body that the concept of life after death is literally unintelligible.

Alexis Carrel calls revelation mysticism. To him:

> The search for God is, indeed, an entirely personal undertaking. By the exercise of the normal activities of his consciousness, man may endeavour to reach an invisible reality both immanent in and transcending the material world.
>
> Thus he throws himself into the most audacious adventure that one can dare. He maybe looked upon as a hero or a lunatic. But

nobody should ask whether mystical experience is true or false, whether it is auto-suggestion, hallucination, or a journey of the soul beyond the dimensions of our world and its union with a higher reality. One must be content with having an operational concept of such an experience. Mysticism is splendidly generous. It brings to man the fulfillment of his highest desires: inner strength, spiritual light, divine love, ineffable peace. Religious intuition is as real as aesthetic inspiration. Through the contemplation of superhuman beauty mystics and poets may reach the ultimate truth (p.132).

1. *An Historian's Approach to Religion.* p. 123.
2. *Encyclopaedia of Social Sciences.* Vol. 13. p. 230

9. A LAST WORD

Vis-à-vis the above-mentioned modern interpretation of religion, I quote below what Alexis Carrel has to say of himself:

> He (the writer) realizes that his description of this aspect of mental activity will please neither men of science nor men of religion. Scientists will consider such an attempt as puerile or insane; ecclesiastics, as improper and aborted, because mystical phenomena belong only in an indirect way to the domain of science.[1]

The phraseology Carrel uses to express his concept of religion is frequently redolent of the religious, but there the similarity ends, for in actual fact, there is no real difference between Carrel's view and a purely atheistic one.

1. The first thing we have to consider is that according to this interpretation, religion emerges as something unreal. It implies that the concepts of God, life after death and revelation have no basis in reality, but are miracles wrought by our own

powers of imagination. But if we are to judge by the force and intensity with which religion has made its way into the minds of the people, it is unthinkable that it is purely a thing of the imagination. The distinguished contemporary historian, Arnold Toynbee writes:

> If we set out to make a survey of the religions that have been practised at different times and places by the numerous human societies and communities of whom we have some knowledge, our first impression will be one of a bewilderingly infinite variety. Yet, on consideration and analysis, this apparent variety resolves itself into variation on Man's worship or quest of no more than three objects or objectives: namely, Nature; Man himself; and an Absolute Reality that is not either Nature or Man but is in them and at the same time beyond them (p.16).[2]

That is, history shows that from time immemorial man has been pursuing the ultimate reality. Is it possible that a totally imaginary notion can pervade the whole of human history? Can any other idea be

pointed out which has made the same impact, which has, in spite of being 'unreal', influenced human psychology in such a thorough-going manner?

2. If we were to abide by this interpretation, it would be but natural if religion were the name of not just one creed, but had a thousand manifestations. If we regarded religion as the name of a particular form of intellectual activity, then every individual would discover it to the degree that his own innate capabilities, his temperament, his environment, and so on, made it possible for him to do so. But if we take religion to be the word of God, then we must concede that it has a definite form, quite independent of subjective consideration, on the basis of which the thoughts, words and deeds of all mankind are judged in terms of right and wrong. Thus the difference in the conceptualization of religion makes for a fundamental difference in its reality. On this aspect of the question, Toynbee has this to say:

> Different people's convictions will differ, because Absolute Reality is a mystery of

which no more than a fraction has ever yet been penetrated by — or been revealed to — any human mind. 'The heart of so great a mystery cannot ever be reached, by following one road only'. However strong and confident may be my conviction that my own approach to the mystery is a right one, I ought to be aware that my field of spiritual vision is so narrow that I cannot know that there is no virtue in other approaches. In theistic terms this is to say that I cannot know that other people's visions may not also be revelations from God —and these perhaps fuller and more illuminating revelations than the one that I believe that I myself have received from Him.

Moreover, the fact that I and my neighbour are following different roads is something that divides us much less than we are drawn together by the other fact that, in following different roads, we are both trying to approach the same mystery. All human beings who are seeking to approach the mystery in order to direct their lives in

> accordance with the nature and spirit of Absolute Reality or, in theistic terms, with the will of God — all these fellow seekers are engaged in an identical quest. They should recognize that they are spiritually brethren and should feel towards one another, and treat one another as such. Toleration does not become perfect until it has been transfigured into love.[3]

Thus countless versions of religion appear to be in existence. The *Encyclopaedia of Religion and Ethics* has discovered 22 different concepts of god extant in different societies and it discusses the concept of God under 22 separate headings.

3. It follows that such an interpretation deprives the terms 'prophethood' and 'termination of prophethood' of their normal significance. Toynbee writes:

> The historian's point of view is not incompatible with the belief that God has revealed Himself to Man for the purpose of helping Man to gain spiritual salvation that would be unattainable by Man's unaided

> efforts; but the historian will be suspicious, a priori, of any presentation of this thesis that goes on to assert that a unique and final revelation has been given by God to my people in my time on my satellite of my sun in my galaxy. In this self-centered application of the thesis that God reveals Himself to His creatures, the historian will espy the Devil's cloven hoof. For there is no logically necessary connection between the belief that God reveals Himself to His creatures and the belief that God has chosen out, to be the recipient of His revelation, one creature that happens to be precisely I myself, and that this revelation, given exclusively to me, is a unique and a final one (p. 132).

Here the error lies in the particular concept of revelation, which the writer finds acceptable. Had he not fallen into this erroneous way of thinking it would have become clear to him that revelation and special revelation are so closely and logically connected that they are quite inseparable. To modern thinkers, revelation is something like a fine picture flashing through an artist's mind, or the

burst of inspiration, which enables a poet to compose a beautiful poem. To them, God is not a conscious being who chooses someone to execute His will in order to serve a purpose; rather God is conceived of as an external, abstract reality which encompasses our universe — a reality which is reflected upon us. To some, this is not the true situation either, although our own subconscious speaks in terms of inspiration and revelation. Clearly, the religious point of view is quite different from this. Hence the failure of the modernists to understand the religious concept of revelation.

4. According to this modern interpretation, religion is reduced to a worldly need, whereas religion, in actual fact, is a need of the life hereafter. That is, from the purely religious point of view, the real task of religion is to show man the path of salvation in the next life. But according to modernists, the aim of religion is to provide a proper basis for social organization in this world. But rather than this being the main purpose of religion, it is only an incidental benefit accruing from the application of religious principles. Dogma connot just be reduced to any given thought arrangement on which there could be

built the unity of purpose and practice desirable amongst the believers of a particular religion.

5. The prevalent form of Judaism, which no longer consists of the original teachings of the prophet Moses, there having been many additions and alterations, has also played its part in giving birth to this modem concept.

Toynbee writes:

> It is, in fact, difficult to imagine that a God whose mind and will govern the whole course of the Universe would compromise the conduct of His government by acting on a caprice. It would seem highly improbable that he would pick out just me and my tribe to be His Prophet and His 'Chosen People'. Any such idea of mine would seem less likely to be the truth than to be an hallucination conjured up by my innate self-centredness.[4]

The concept of the 'Chosen People' (possibly the concept of Judaism which the writer has in mind) normally signifies that a group is chosen for no better reason than its relation to a particular person,

nation or race. But in terms of religious absolutes, this is an absurdity: the truth is that an individual or group following divine revelation will be considered 'chosen' in the eves of God irrespective of family, race or nationality. The former interpretation of religion, from the religious point of view, is little better than a denial of religion. A religion which does not base itself upon the concept of rewards and punishments justly meted out, and reduces itself simply to a personal undertaking with no relation to other human beings, recognizing as its fountainhead not a living and conscious God, but man's own mind and consciousness, (or even the unconscious) can only be described as fallacious and a pure matter of expediency. It is unacceptable to mankind, for adherence to such creed is tantamount to saying, "there is no God but man," rather than "There is no god but God."

1. *Man the Unknown*, p. 130.
2. *An Historian's Approach to Religion*, p. 123.
3. *Ibid.*, pp. 250-51
4. *lbid.*, p. 135

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There are two kinds of knowledge: knowledge of things and knowledge of truth. So far as “things” are concerned, they display no attribute, which cannot be elucidated by direct argument. But where truths are concerned. It is only indirect argument, which can throw any light upon them. Indeed, in the case of scientific truths, the validity of indirect, or inferential argument is a matter of general acceptance. Since religious truths are proved by the logic of similar inferential argument. It may legitimately be argued that they fall into the same intellectual bracket as scientific truths.